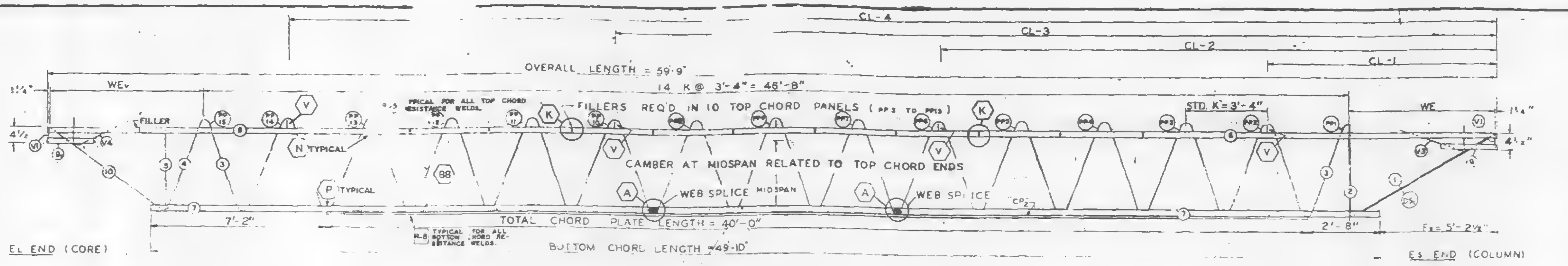
1000-1099

WTCI-181-LERA

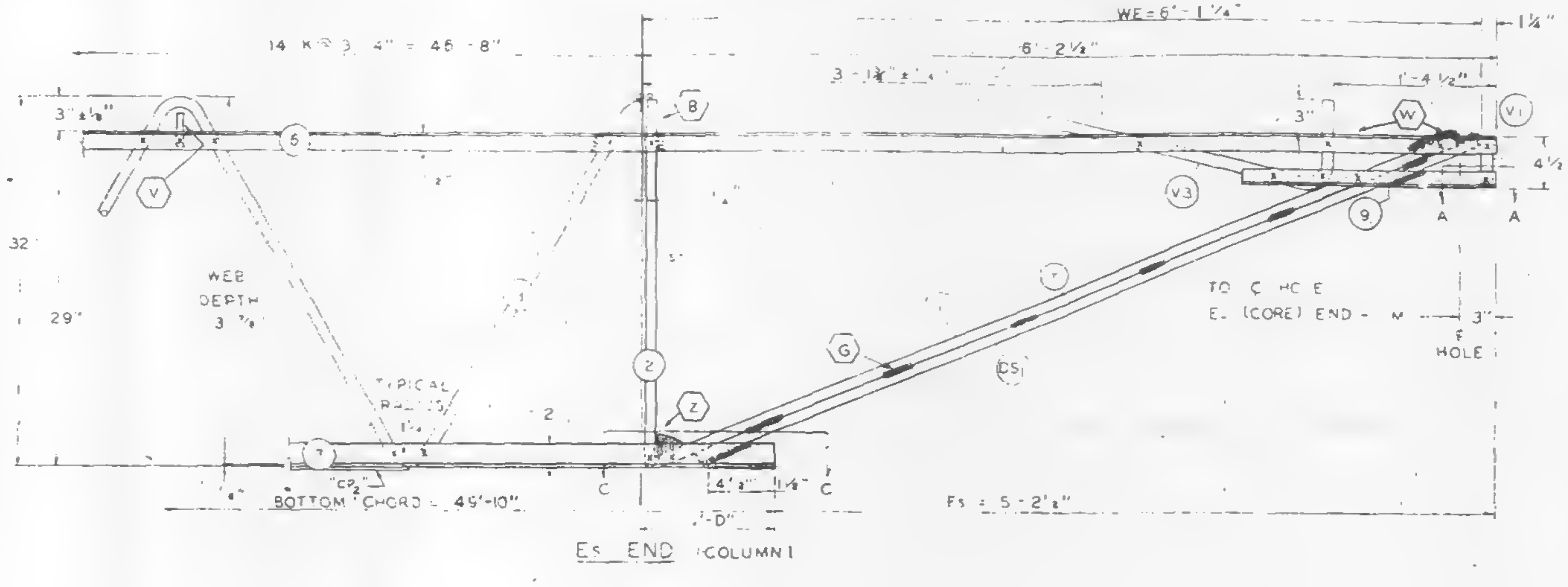
**FABRICATION REQUIRMENTS**

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¹⁄₁₆" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 7/8" | ± 1/4" |



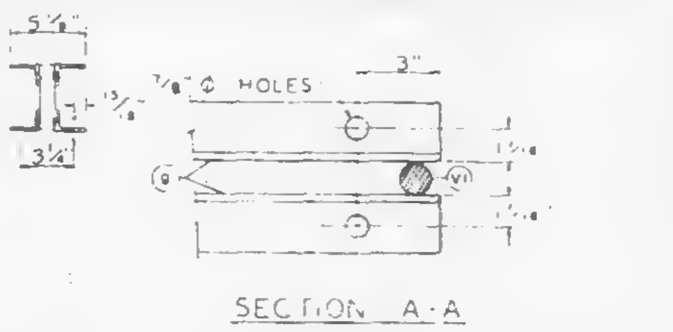
CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
14 K @ 3'-4" = 46'-8"
WEv
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD. K = 3'-4"
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE MIDSPAN
WEB SPLICE
CP2
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH 49'-10"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

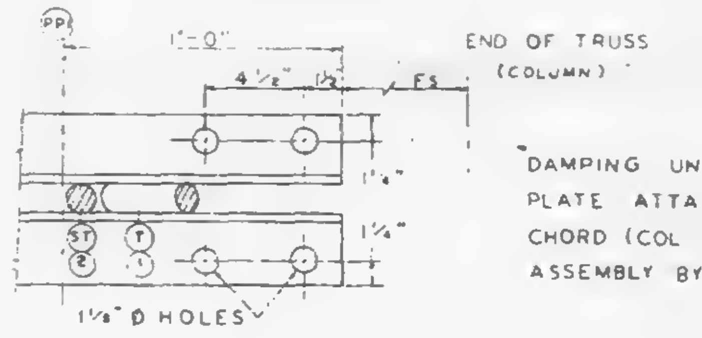


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (•)
ARC WELDS INDICATED AT SHADED AREAS.
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST29D ST261, ST292, AND ST280.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R-6.

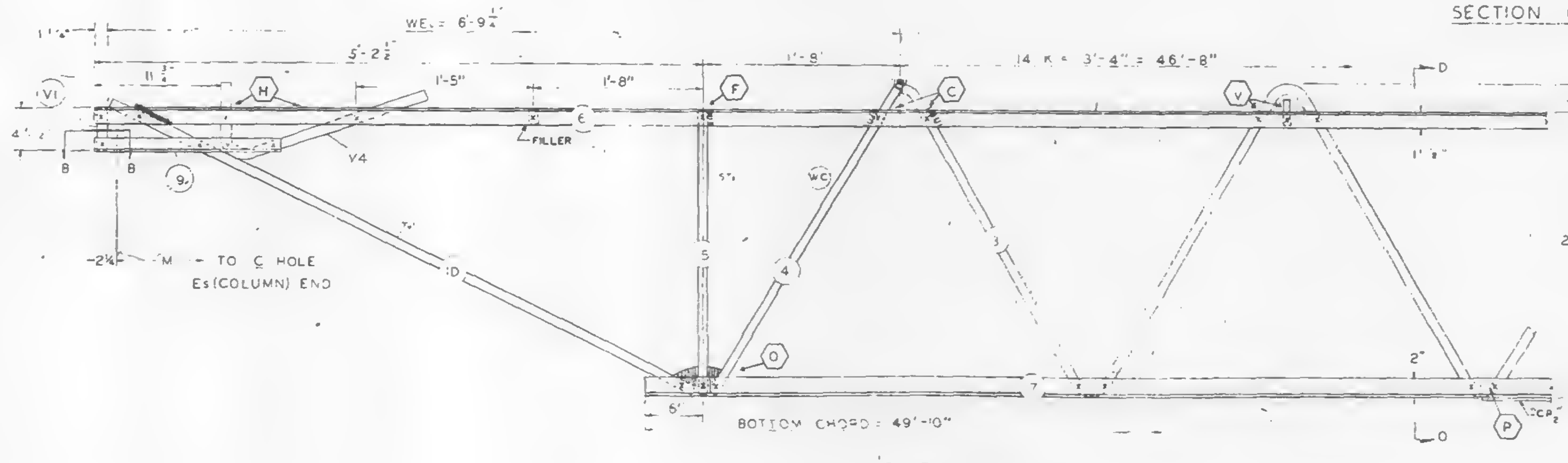


SECTION A-A

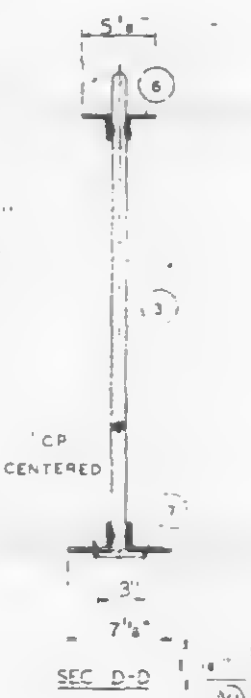


SECTION C-C

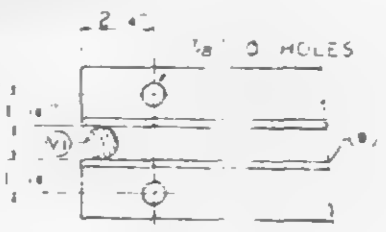
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-22-68 | GENERAL | T.M.C. |
| 1 | 5-27-68 | T LENGTH, WELD, CHORD PLATE | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-15-68 |
| 7-AB-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4 50 & 50 2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RES NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7A-599 | 6 | A242 | 2"x1½"x.31 | 59'-9" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59'-3¾" | 4 | 1.09" | 3" | CP2 | A36 | ¼x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7A-599 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | 05 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7A-599 | 9v | A242 | 2"x1½"x.25 | 1'-7" | 6'-9¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4½" | - | - | - | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 3'-0½" | - | - | - | - | - |

STEEL TRUSS DETAILS

[illegible]

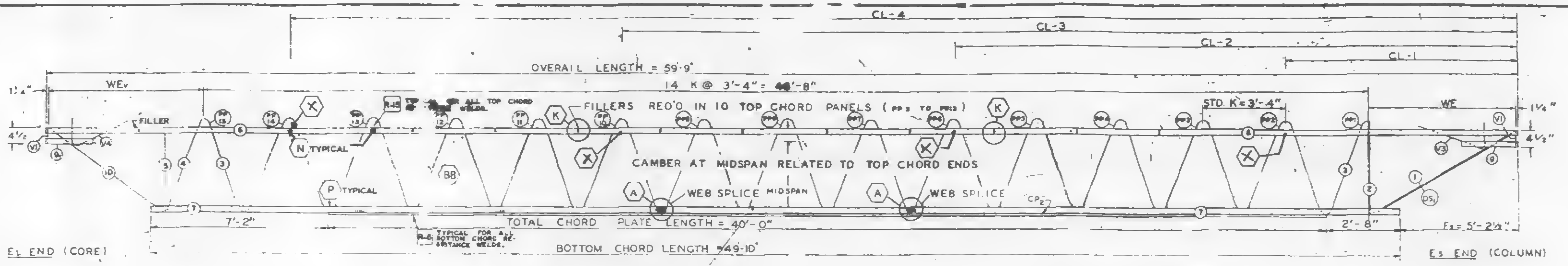
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7A 59'-9" OVERALL

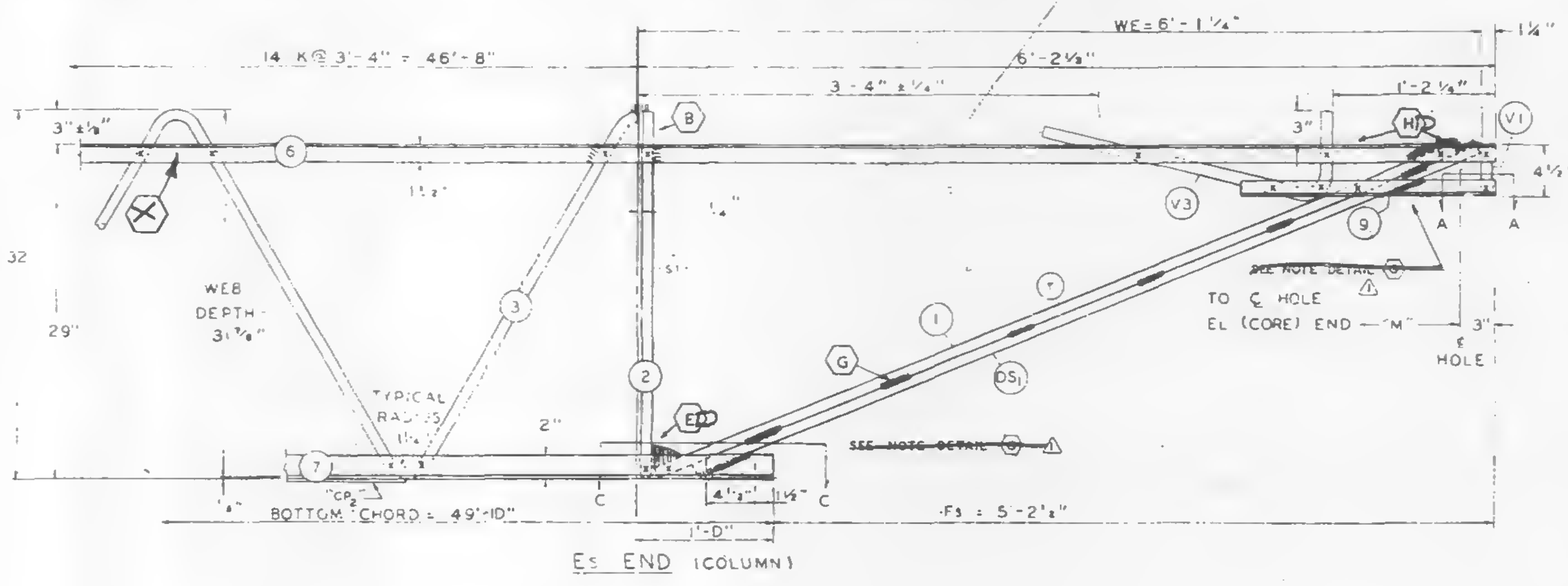
WORLD TRADE CENTER TOWER A-8

FABRICATION BY LACLEDE STEEL COMPANY

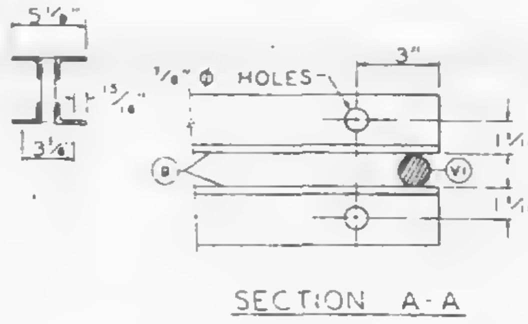
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DRAWING NO 7-AB1-4 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR PONYA DATE 4/25/68 | DRAWN BY [illegible] DATE APR. 18, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY T.M. CHURA DATE APR. 18, 1968 | IN CHARGE OF PROD DEV |
| DETAILED BY A.C. WEBER | FABRICATION CONT NO WTC 221 | SHEET NO ST207A |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP12)
STD K=3'-4"
WE
WE
FILLER
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE MIDSPAN
WEB SPLICE
CP2
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
R-6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
2'-8"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

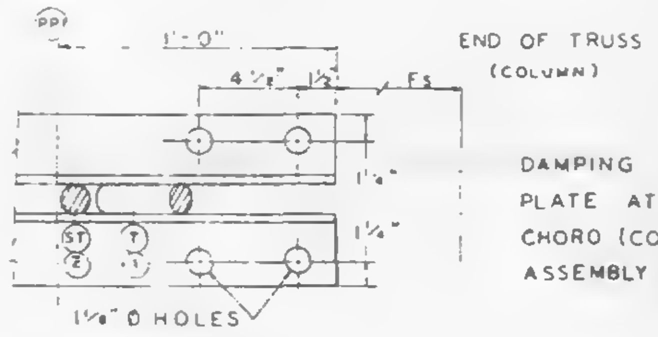
TRUSS ELEVATION



Es END (COLUMN)



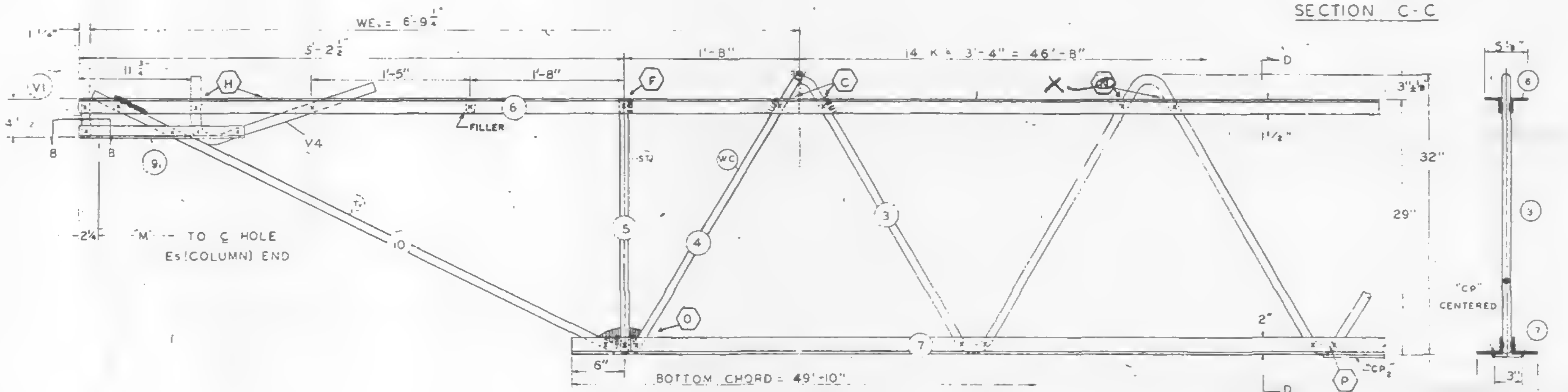
SECTION A-A



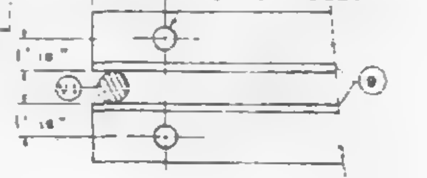
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS.
AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST280.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC O-O

SECTION B-B

## FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | TRUSS DATA | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO. | DIA | | | | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7A-S99 | 6 | A242 | 2"x1½"x 31 | 59'-9" | 7 | A36 | 3"x2"x 33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59'-3¾" | | | CP2 | A36 | ¼x3 | 40'-0" ⚠ |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7A-S99 | 9 | A242 | 2"x1½"x 25 | 1'-10" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" ⚠ | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4¾" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .75 | 6'-3⅛" ⚠ |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "TV" STRUT | | | | VERTICAL "ST" STRUT | | | | STIFFENER MK. V1 | | | STIFFENER MK. V2 | | | STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7A-S99 | 9 | A242 | 2"x1½"x 25 | 1'-7" | 6'-9¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4½" | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 3'-0½" | — | — | — | — | — |

XV
6/13/68 WAB

| ⚠ | 5-27-68 | T LENGTH, WELD, CHORD PLATE | T.M.C. |
|---|---|---|---|
| NO. | DATE | REVISION | |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-15-68 |
| 7-AB1-S2 | 2-15-66 |
| 7-AB1-S3 | 4-1-68 |
| 7-AB4-SD & SD 2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-SD 5 | 10-20-67 |

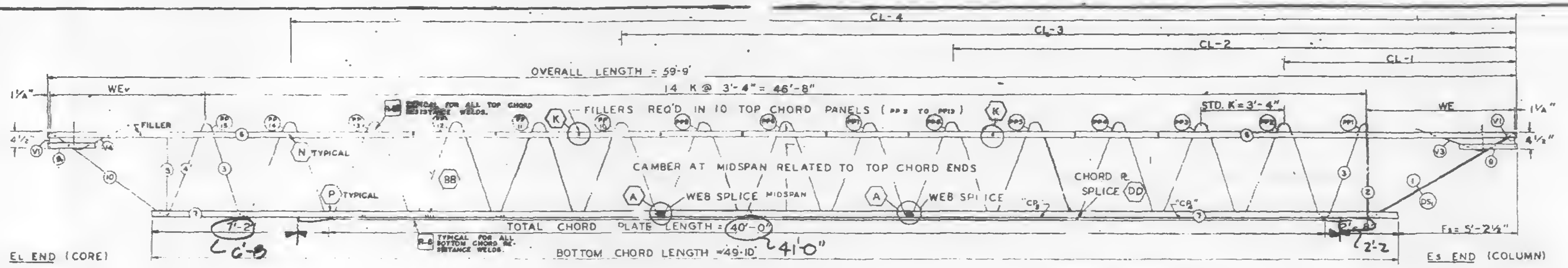
PAINT
LACLEDE ELECTROCOAT
RED NO 10001

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

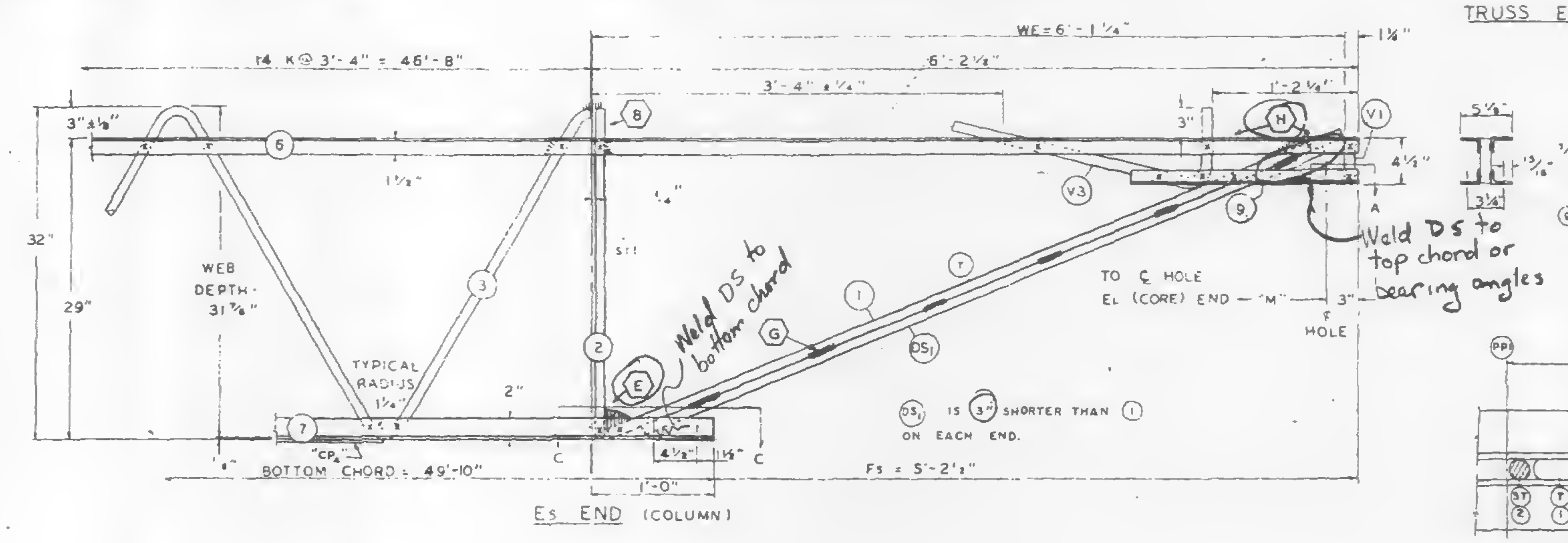
FLOOR TRUSS C32T7A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

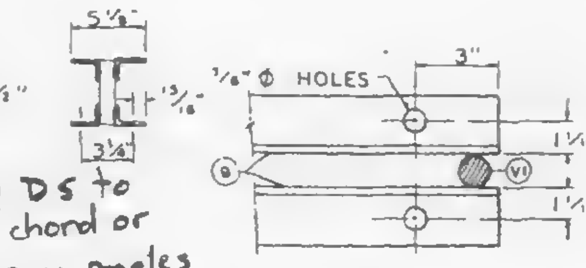
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-4 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY FOR PDNYA DATE
DRAWN BY luh DATE APR 18, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE APR. 13, 1968
IN CHARGE OF PROD DEV
DETAILED BY LACLEDE STEEL CO
FABRICATION CONT NO. WTC 221
SHEET NO ST207A


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
14 K @ 3'-4" = 46'-8"
WE
1¼"
4½"
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP2 TO PP12)
STD. K = 3'-4"
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
CHORD PL SPLICE
TOTAL CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
Fs = 5'-2½"
7'-2
6'-8
41'-0"
2'-2
EL END (CORE)
Es END (COLUMN)

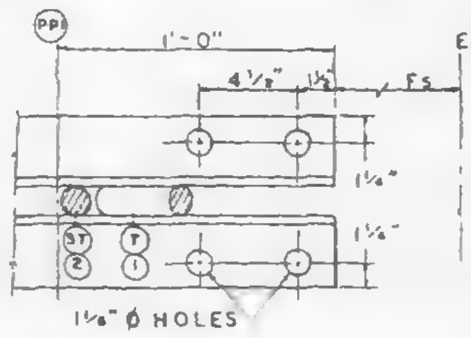
TRUSS ELEVATION



Es END (COLUMN)



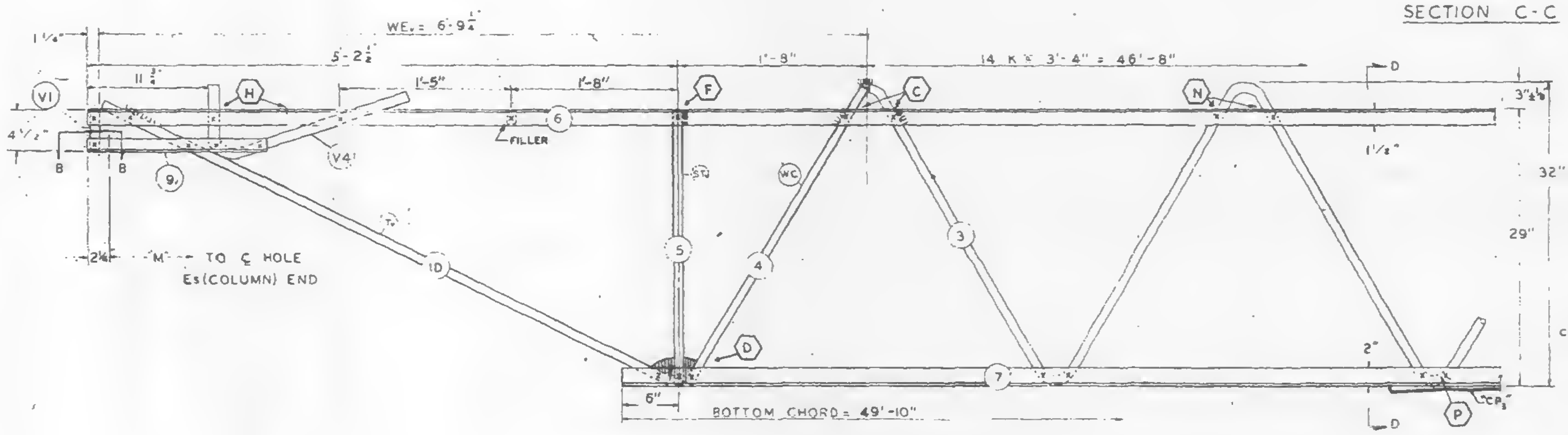
SECTION A-A



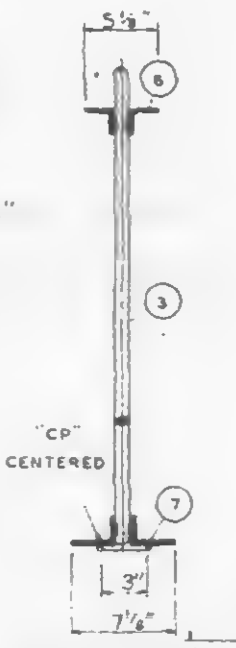
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS.
AND AT BOTTOM CHORD WEB SPLICES (////).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST280.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

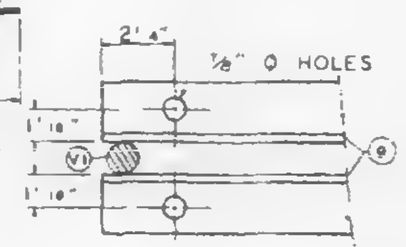
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC 0-0



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 28" | ± /4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59' 9 | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/ " |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | A-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLE | TRUSS DATA | | CHORD PLATES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7A-599 | 6 | A242 | 2"x1½"x .31 | 59'-9" | 7 | A36 | 3"x2"x .33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59'-3¾" | | | CP₂ | A36 | ¼x3 | 30'-0" | CP₃ | A36 | ¼"x3" | 10'-0" |

| COLUMN END | | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Es END | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T7A-599 | 9 | A242 | 2"x1½"x .25 | 1'-10" | 6'-1¼" | 1 | A36 | 1.09 | 6'-5" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | | 1.09 | 2'-9½" | DS₁ | A242 | .92 | 5'-11" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2⅛" | 49'-6½" | 5'-2½" |

| CORE END | | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | WEB "Wt" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | EL END | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T7A-599 | 9ᵥ | A242 | 2"x1½"x .25 | 1'-7" | 6'-9½" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4½" | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 3'-0½" | — | — | — | — | — |

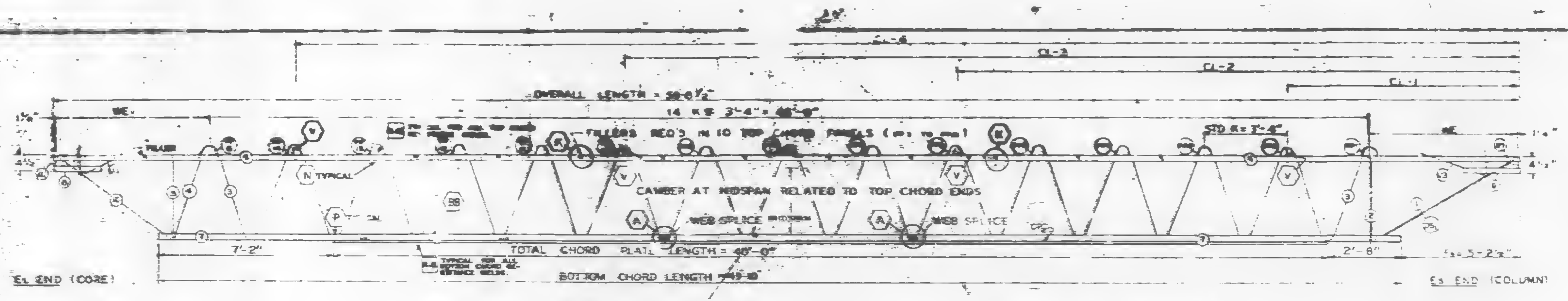
PERSON
4/16/68 SC

STEEL TRUSS DETAILS
OF
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

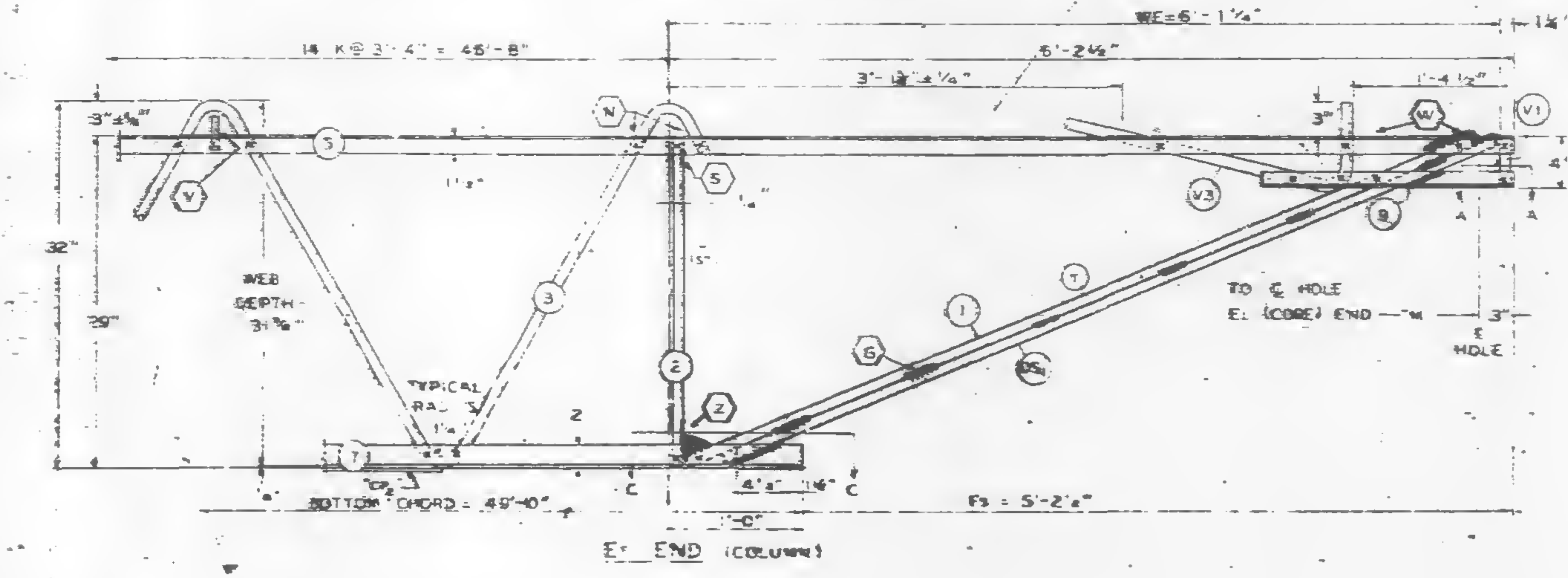
FLOOR TRUSS C32T7A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

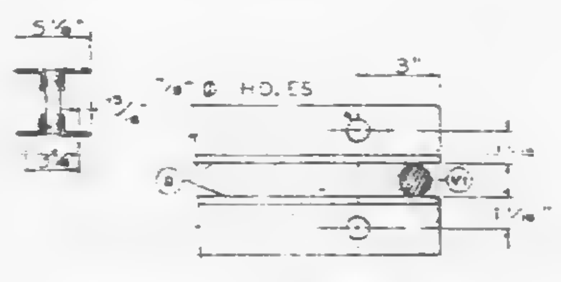
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-AB1-4 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION DATE BY FOR PONYA | DRAWN BY lwh DATE APR. 18, 1968 | |
| APPROVED FOR FABRICATION DATE BY FOR FABRICATOR | CHECKED BY T.M. CHURA DATE APR. 18, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO. | FABRICATION CONT NO WTC 221 | SHEET NO ST207A |



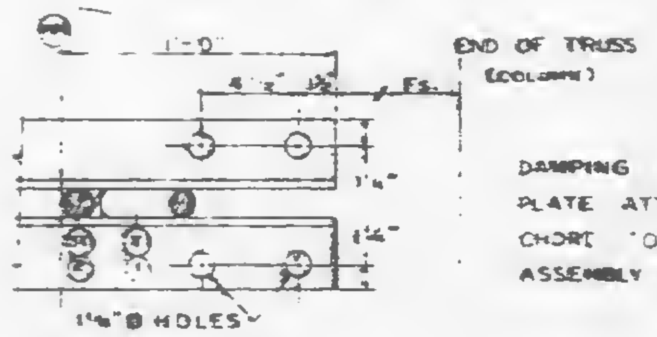
USS ELEVATION



Es END (COLUMN)



SECTION A-A

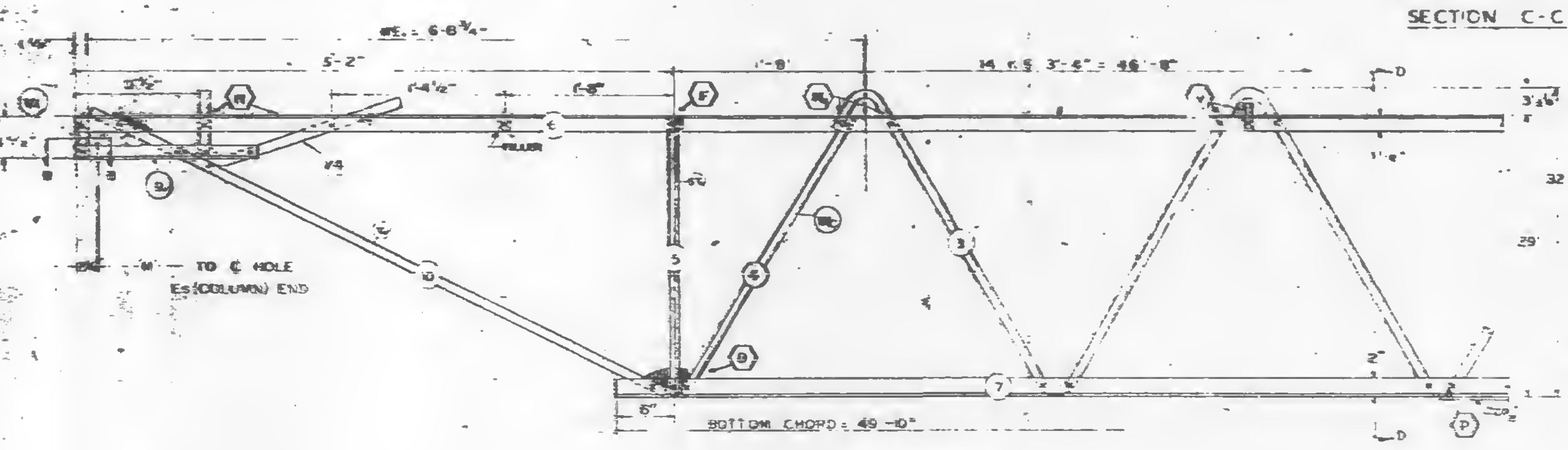


SECTION C-C

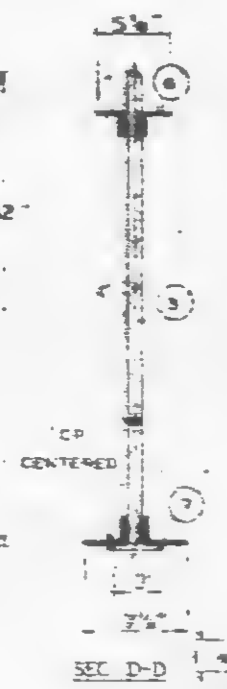
ALL PANEL POINTS RESISTANCE WELDED (R).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (R-MR).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.
AND ST28_.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie R-6

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

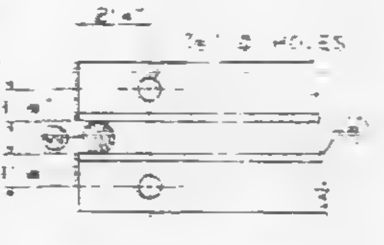
| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¼" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | 59-8 | ± 3/8" |
| WEB DEPTH | 31⅛" | ± 1/4" |



Ec END (CORE)



SEC D-D



SECTION B-B

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 2-22-65 |
| 7-AB1-52 | 2-15-[illegible] |
| 7-AB1-53 | 2-22-[illegible] |
| 7-AB4 50 | [illegible] |
| 7-AB3-2 | 1-3-[illegible] |
| 7-AB4-505 | [illegible] |

PAINT
LACLEDE ELECTROCOAT
RED NO. 1000H

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7B-5985 | 6 | A242 | 2"x1½"x.31 | 59'-8½" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59'-3¼" | 4 | 1.09 | 3" | CP | A36 | [illegible] | 40'-0" |

| | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COLUMN END | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T7B-5985 | 9 | A242 | 2"x1"x¼"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¾" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | [illegible] | [illegible] | [illegible] | A242 | .32 | 6'-3¾" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 35'-2½" | 49'-6½" | 5'-2½" |

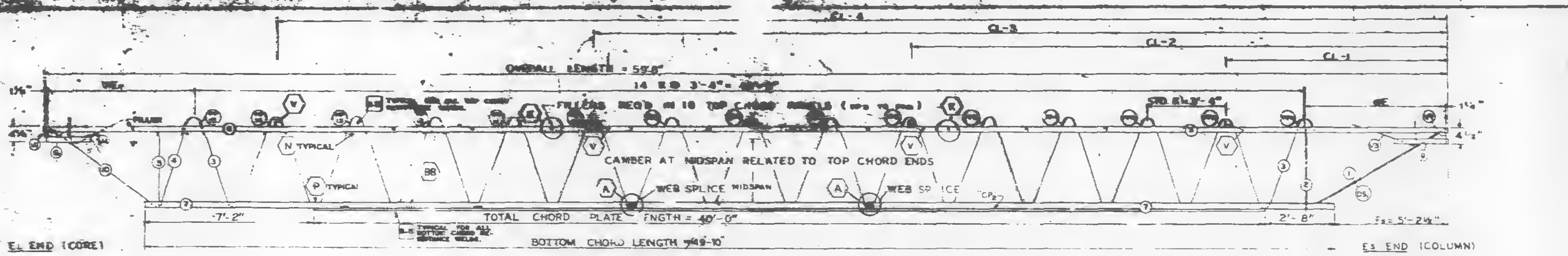
| | Ec END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END "S" STIFFENER | | | | | | | | | WEB "W" | | | | | WEB "W" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE END | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T7B-5985 | 8 | A242 | 2"x1¼"x.25 | 1'-6" | 6'-8¾" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-[illegible] | A36 | 1.14 | 4" | — | — | — | A[illegible] | 1.09 | 2'-3" | 4 | [illegible] | 1 | 1.09 | 2'-8" | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

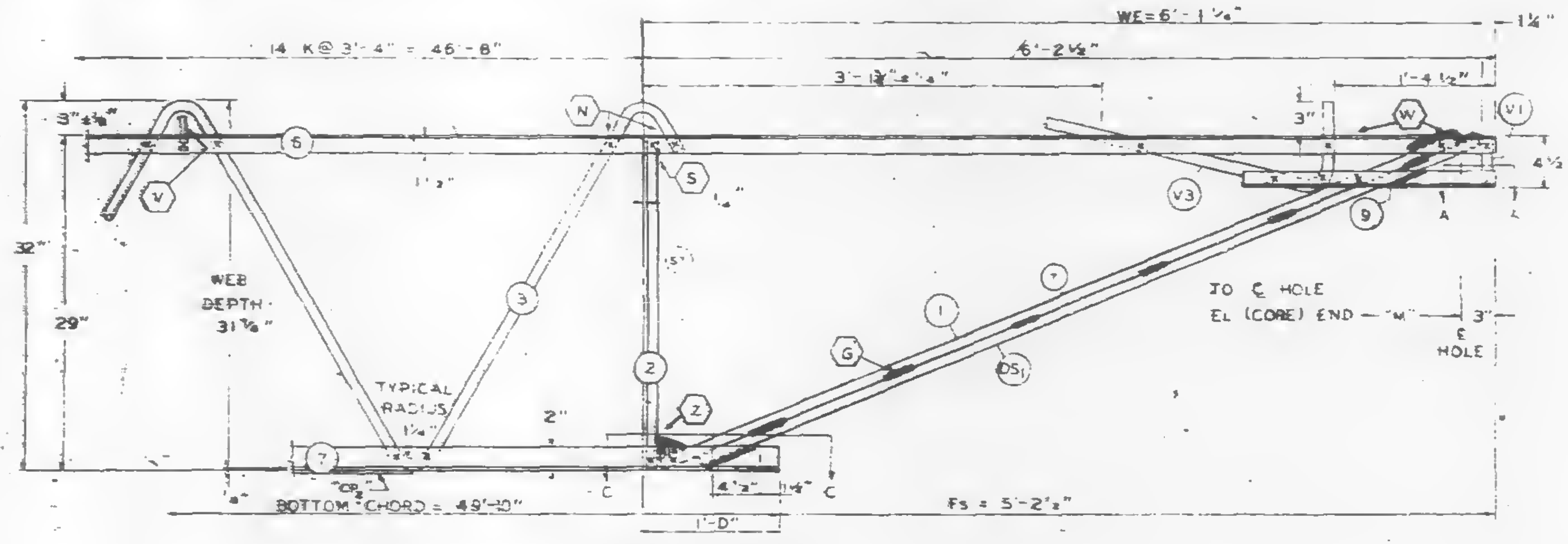
FLOOR TRUSS C32T7B 59'-8½" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

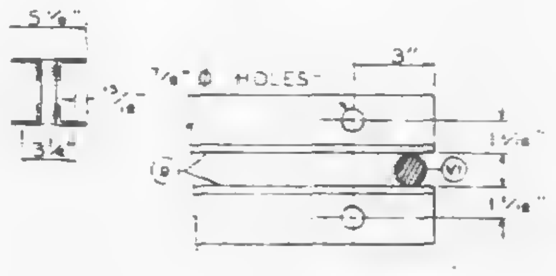
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION DATE FOR PONYA | DRAWN BY [illegible]<br>DATE FEB [illegible] | |
| APPROVED FOR FABRICATION DATE FOR [illegible] | CHECKED BY [illegible]<br>DATE FEB. [illegible] | [illegible] |
| BY LACLEDE STEEL CO. | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST29[illegible] |



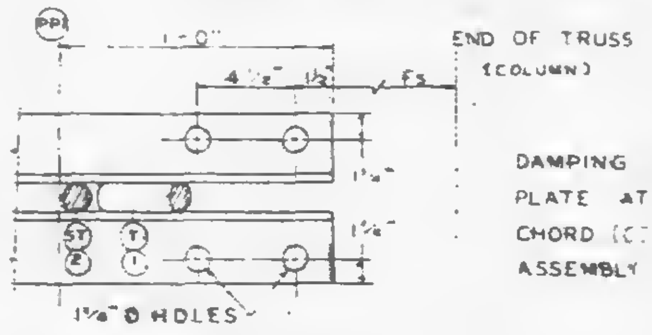
TRUSS ELEVATION



Es END (COLUMN)



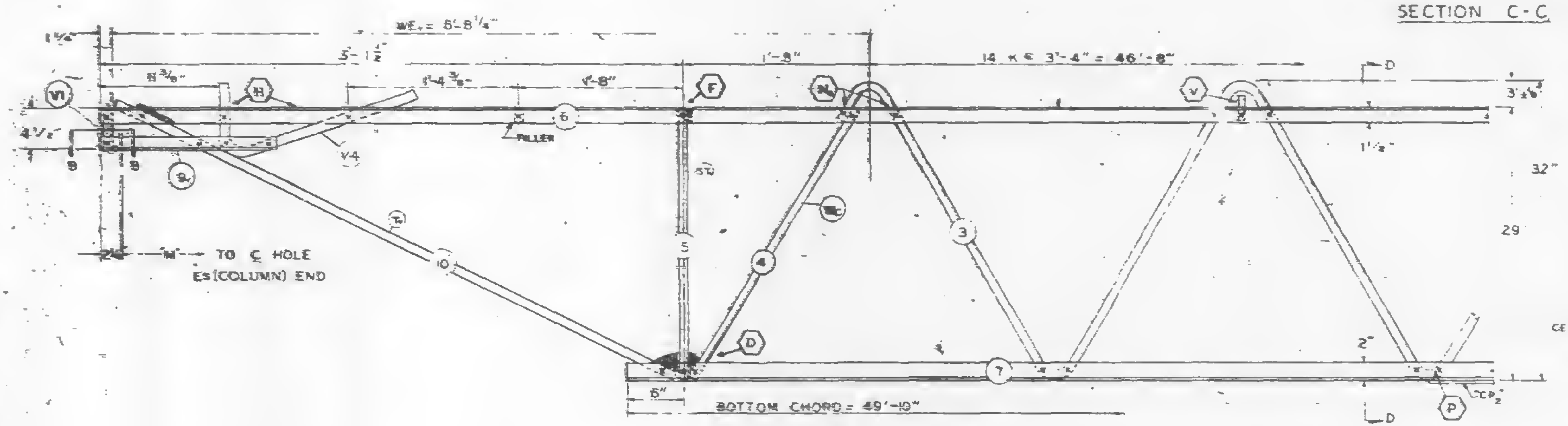
SECTION A-A



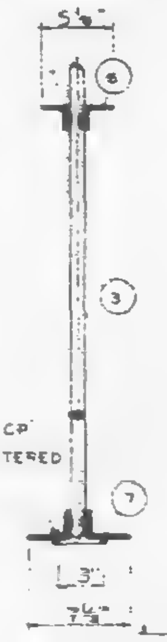
SECTION C-C

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (EL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

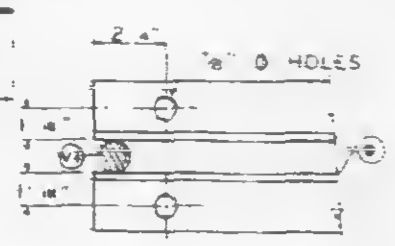
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS.
AND AT BOTTOM CHORD WEB SPLICES (midspan).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293,
AND ST280
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-6.



EL END (CORE)



SEC D-D



SECTION B-B

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| NO. | DATE | | REVISION | | BY |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB-52 | 2-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 6-4-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | [illegible] | [illegible] |
| CAMBER AT MIDSPAN | 2¾" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | 1/[illegible] |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 7-8" | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7C-598 | 6 | A242 | 2"x1½"x.31 | 59'-8" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59'-3¾" | 4 | 1.09" | 3" | CP₂ | A36 | ¼x3 | 40'-0" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T7C-598 | 3 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅜" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9⅛" | DS₁ | A242 | .32 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

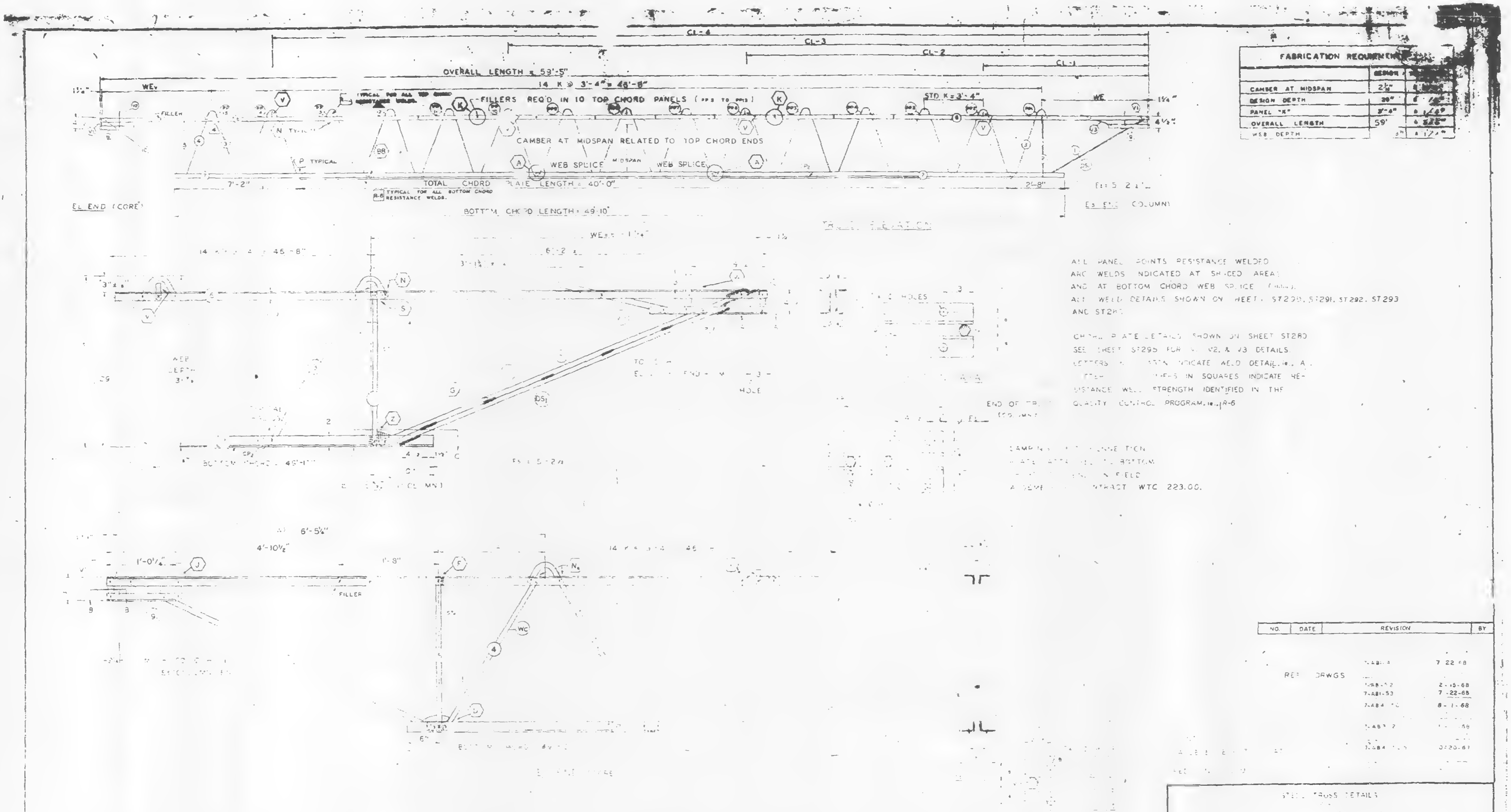
| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | [illegible]C-598 | 9 | A242 | 2"x4"x.25 | 1'-6" | 6-8¼ | 10 | A242 | 1.14 | 5'-5⅞ | 5 | A242 | 1.14 | 2'-4⅞ | A242 | 1.14 | 4⅞ | — | — | — | A242 | 1.14 | 2'-2⅞ | 4 | A242 | 1 | 1.14 | 2'-10" | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7C 59'-8" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-4 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION FOR PONYA | DATE 2/28/69 | DRAWN BY [illegible] DATE FEB 10 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY [illegible] DATE FEB 11 1969 | IN CHARGE OF PROD. DEPT. |
| DETAILED LACLEDE STEEL CO. | | FABRICATION CONT NO WTC 221 | SHEET NO [illegible] |



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICE
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST2

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN INDICATE WELD DETAIL, ie., A.
LETTERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6

CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | |
| CAMBER AT MIDSPAN | 2½" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | 59' | [illegible] |
| WEB DEPTH | | [illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

7-22-68
2-15-68
7-22-68
8-1-68
3-20-67

C32T7D 595 | 9 | A242 | 59'-5" | 58'-11¼"

| | | | | | | | | | | END STIFFENER | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | MK V1 | | | MK V3 | | | |
| C32T7D 595 | 3 | A242 | 2" | 6'-1" | | 5'-3⅛" | 2 | A36 | 2'-4⅞" | A36 | | 4⅞ | .09 | 2'-9½" | | |

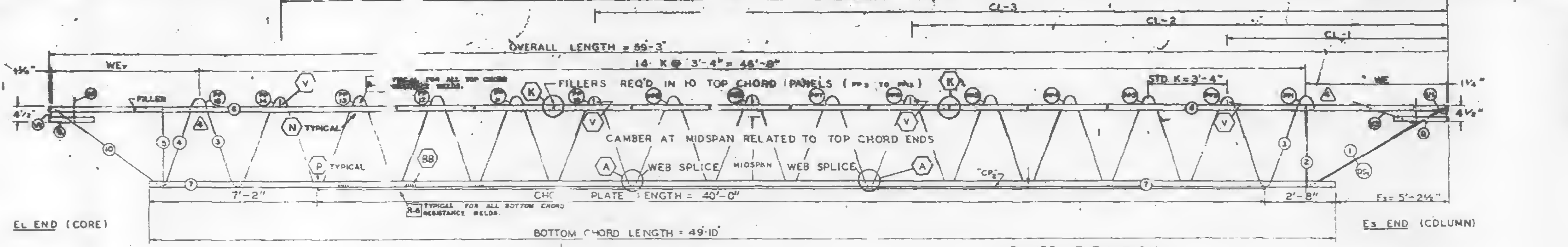
CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS
CL-1 | CL-2 | CL-3 | CL-4 | Fs
22'-10 | 36'-2 | 49'-6

**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE₁ | DIAGONAL ST. STRUT | | | | VERTICAL ST. STRUT | | | | END STIFFENER | | | | | | | | | WEB WC | | | | | WEB WT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7D 595 | 9 | A242 | 2" × 2½" | 1'-2¾" | 6'-5¼" | C | A242 | 1.4 | 5'-3" | 5 | A242 | | 2'-4⅛" | A242 | .4 | 4½ | A242 | 1.14 | 7 | — | — | — | 4 | A242 | | 1.14 | 2'-10" | - | -- | — | – | — |

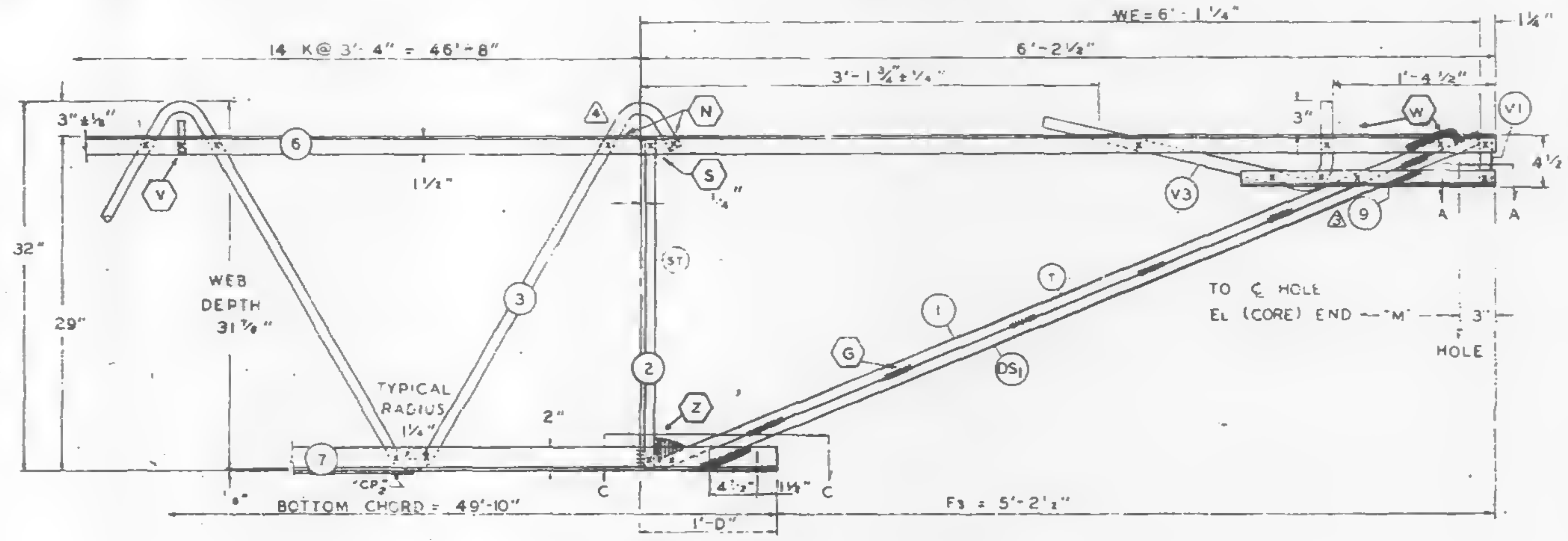
STEEL TRUSS DETAILS
59'-5" SPAN
WORLD TRADE CENTER TOWER A-B

James White 4/15/69
A-7-69
4-7-69
221
ST207D

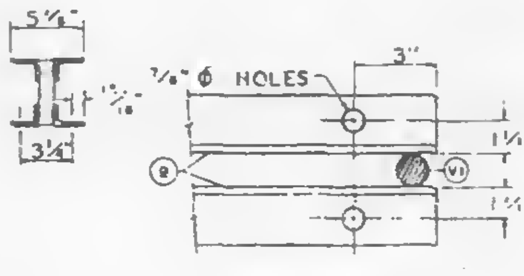


TRUSS ELEVATION

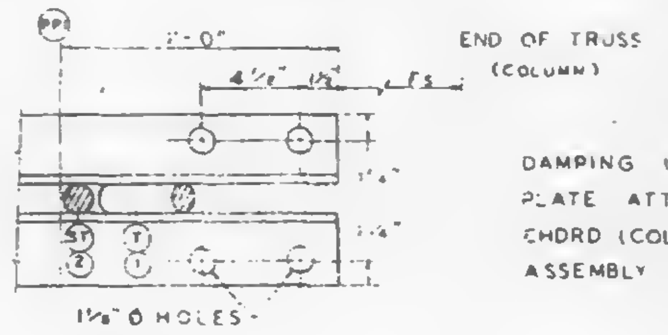
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± ¼" |
| OVERALL LENGTH | 59'-3" | ± 3/8" |
| WEB DEPTH | 31" | ± 1/4" |



Es END (COLUMN)



SECTION A-A

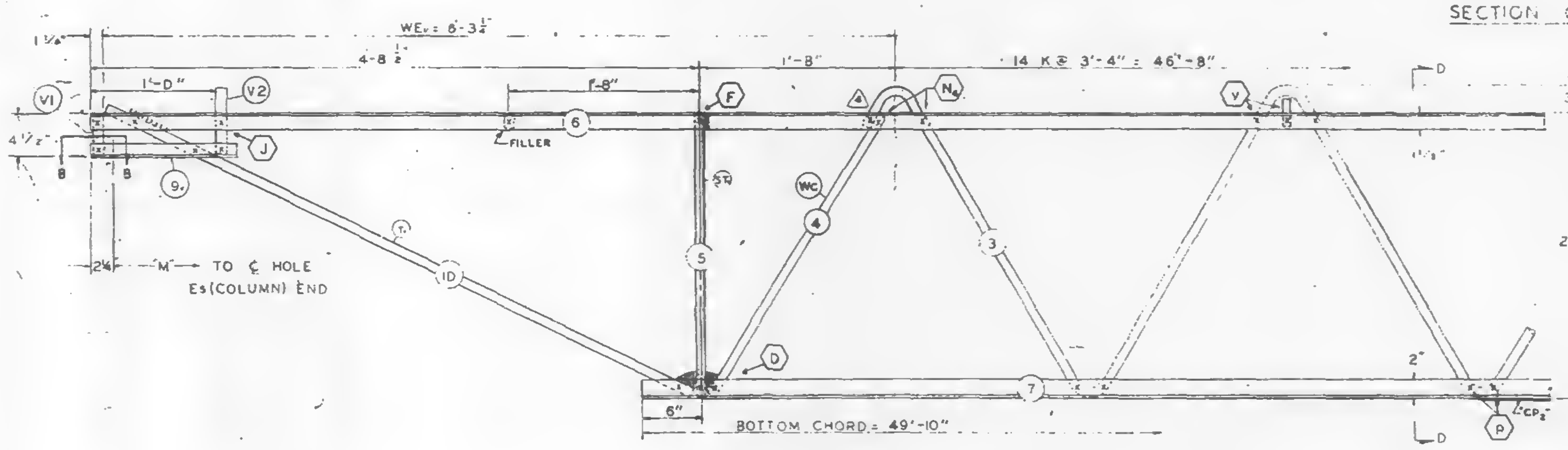


SECTION C-C

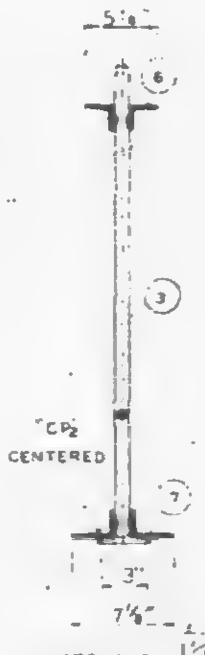
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (xxxx).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST280. ④

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6.

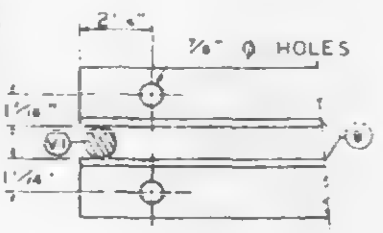
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC. D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ④ | 12-9-68 | AS NOTED | G.D.C. |
| ③ | 7-22-68 | MK. ⑨ LENGTH | T.M.C. |
| ② | 6-22-68 | GENERAL | T.M.C. |
| ① | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

④ REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | ④ LENGTH | NO. OF K | NO | DIA | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T7E-593 | 6 | A242 | 2"x1½"x 31 | 59'-3" | 7 | A36 | 3"x2"x 33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-9¾" | 4 | 1.09 | 3" | CP₂ | A36 | ¼x3 | 40'-0" |

① (CHORD PLATE)

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | ③ LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | ④ LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T7E-593 | 9 | A242 | 2"x1½"x 25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9½" | DS₁ | A242 | .92 | 6'-3⅛" |

① (DIAGONAL "T" STRUT) ① (DOUBLE STRUT)

| CHECK DIMENSION FOR TRUSS FAB — LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

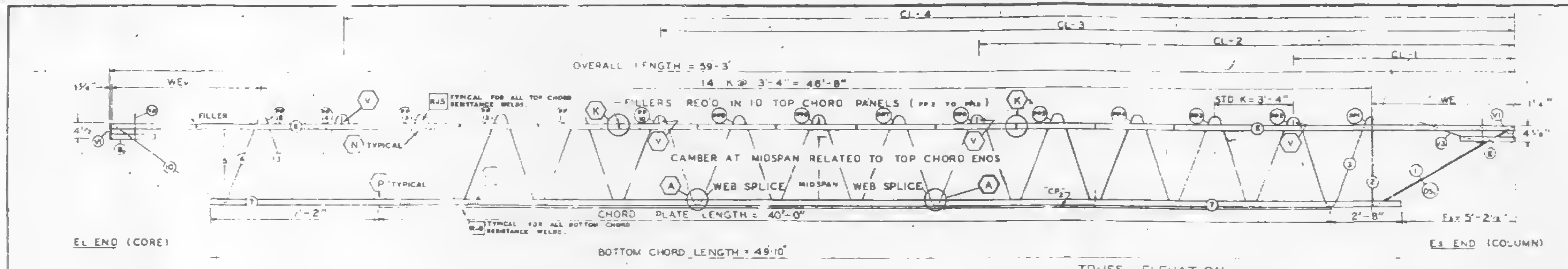
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE₁ | DIAGONAL "T₁" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | ④ LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | PCS | DIA | ④ LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH |
| | C32T7E-593 | 9₁ | A242 | 2"x1½"x 25 | 1'-2" | 6'-3¾" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4⅜" | A242 | 1.14 | 4⅞ | A242 | 1.14 | 7⅞ | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

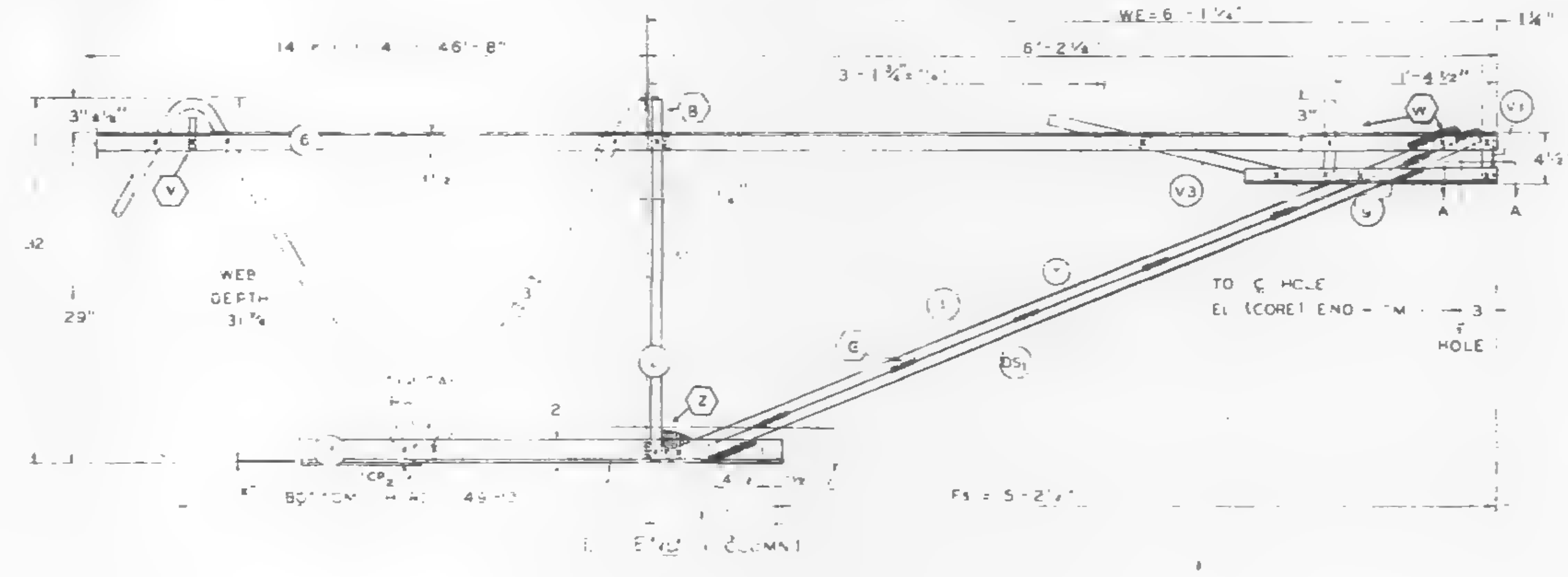
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

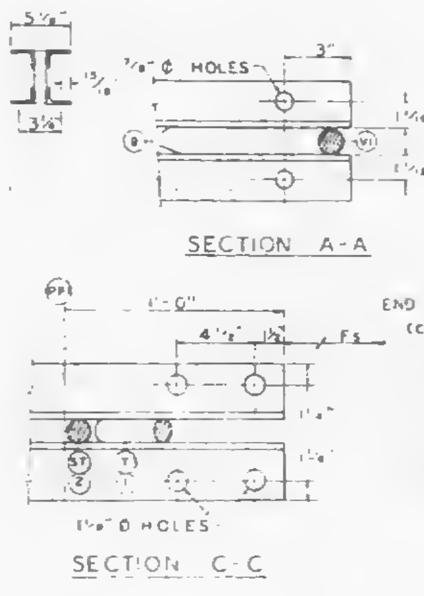
FLOOR TRUSS C32T7E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B.

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-4 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY James White FOR PONYA DATE 12/12/68
DRAWN BY Cwh
DATE APR. 18, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
LACLEDE STEEL CO.
CHECKED BY T.M. CHURA
DATE APR. 18, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATOR CONT. NO. WTC 221
SHEET NO ST207E


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
N TYPICAL
P TYPICAL
FILLER
CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
2'-8"
Fs = 5'-2⅛"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION





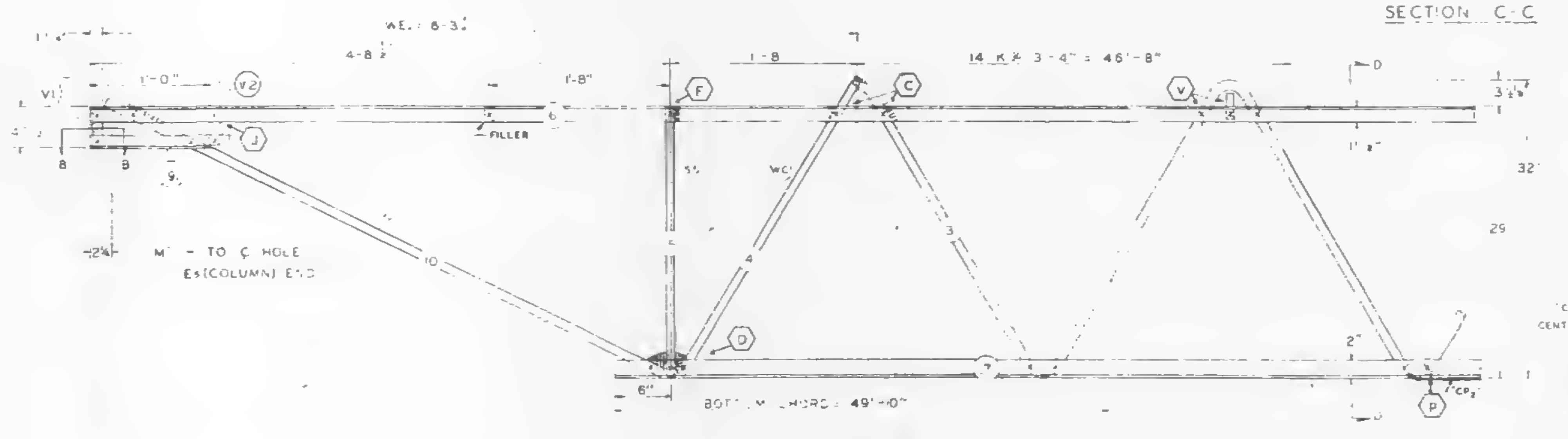
SECTION A-A

SECTION C-C

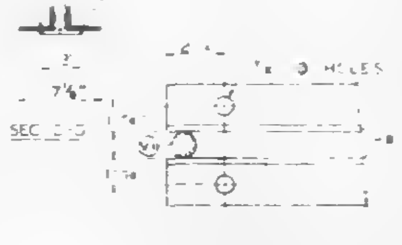
ALL PANEL POINTS RESISTANCE WELDED.
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST280

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2⅛" | ± 3/8" |
| DESIGN DEPTH | 32" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 5/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 7-22-68 | MK ⑨ | T.M.C. |
| △2 | 6-22-68 | GENERAL | T.M.C. |
| △1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-5-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
REG NO 1066

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7E-593 | 6 | A242 | 2"x1½"x 3 | 59-3" | 7 | A36 | 3 x 2" x 33 | 49'-10" | 3 | A36 | 1.09 | 87'-2¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58-9¾" | 4 | 1.09 | 3" | CP2 | A36 | ¼x3 | 40'-0" |

△1

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH △3 | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T7E-593 | 9 | A242 | 2"x1½"x 25 | 2'-3" | 6'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

△1 △1

CHECK DIMENSION FOR TRUSS FAB

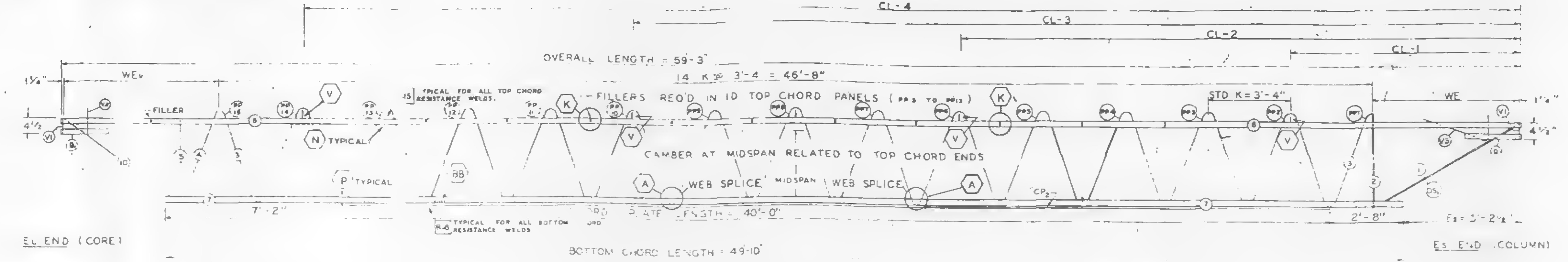
| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6⅛" | 22'-10⅛" | 36'-2⅛" | 49'-6⅛" | 5'-2⅛" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T7E-593 | 9 | A242 | 2"x1½"x 25 | 1'-2" | 6'-3¾" | 0 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | — | — | — | — | — |

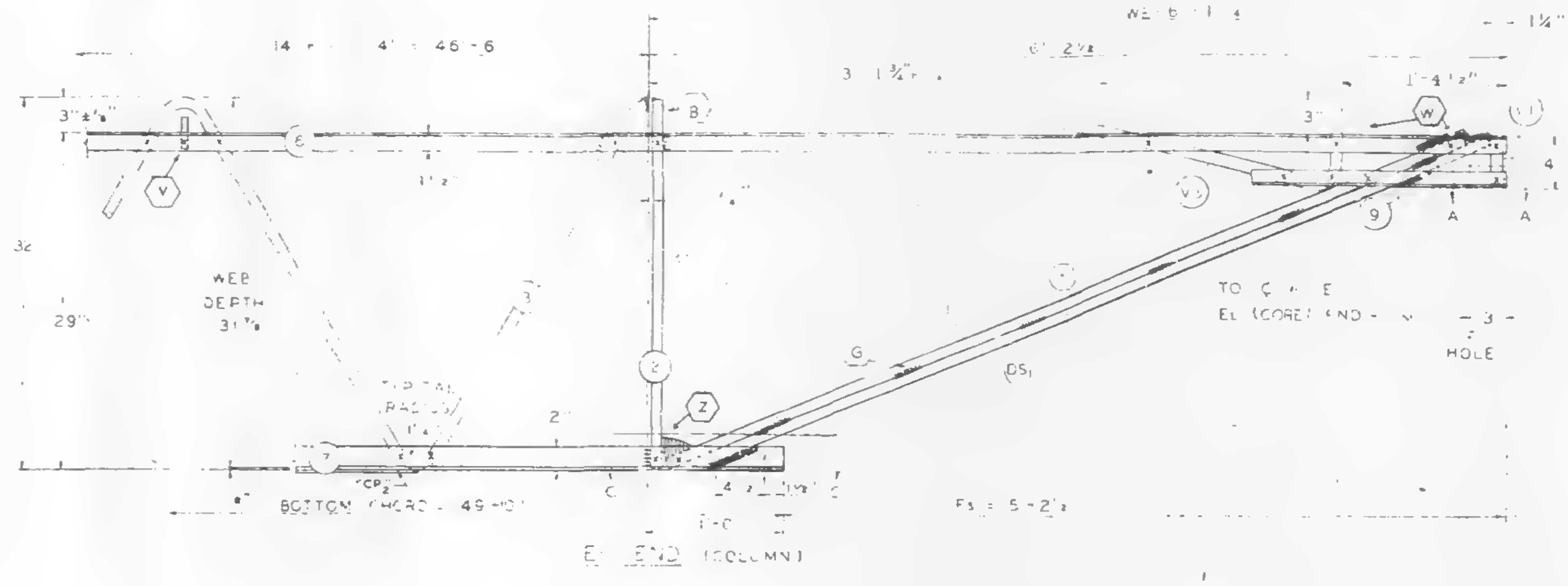
STEEL TRUSS DETAILS

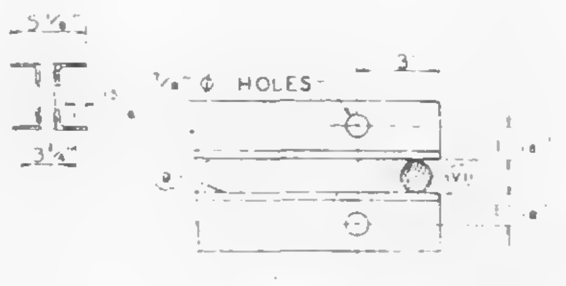
FLOOR TRUSS C32T7E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

7-AB1-4 7-AB3-2
3/4/68
APRIL 18, 1968
TM CHURA
APR 18, 1968
DETAILED BY
221
SHEET NO
ST207E

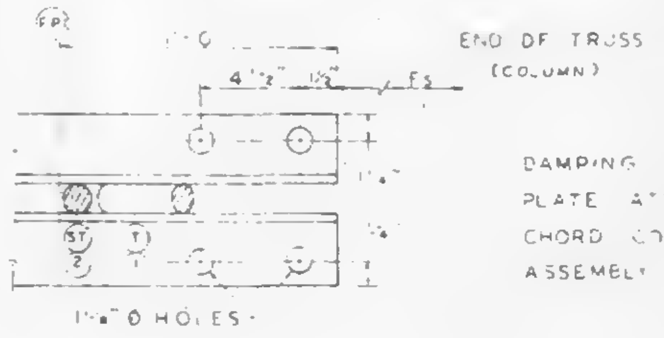

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 K @ 3'-4 = 46'-8"
1¼"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
P TYPICAL
WEB SPLICE
MIDSPAN
WEB SPLICE
CP2
7'-2"
CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
EL END (CORE)
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)
4½"

TRUSS ELEVATION





SECTION A-A



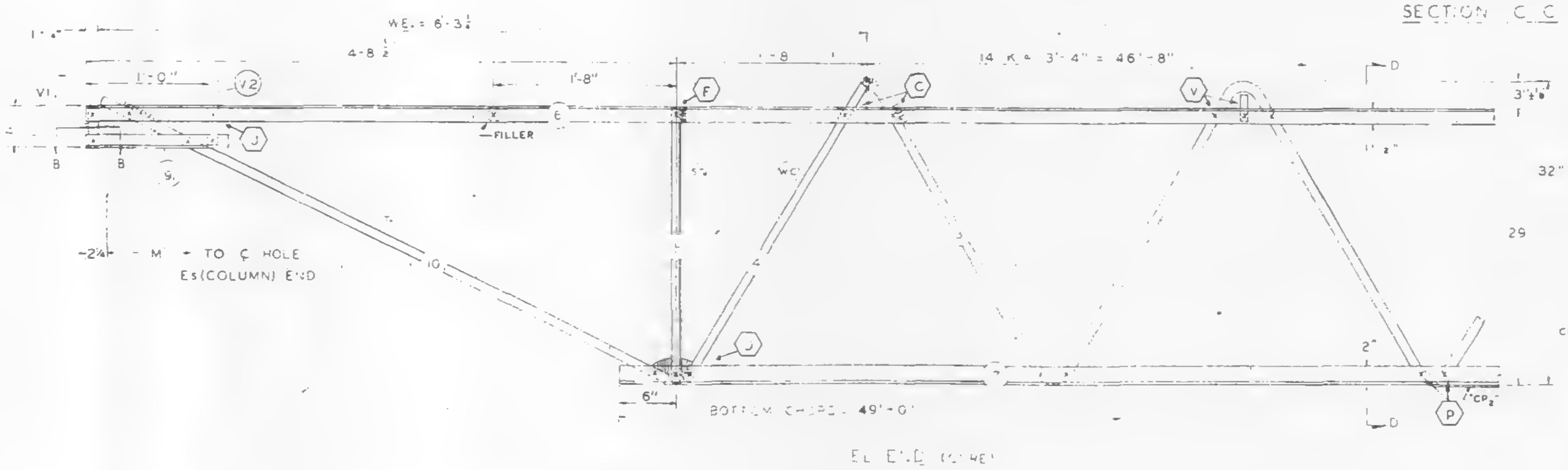
SECTION C-C

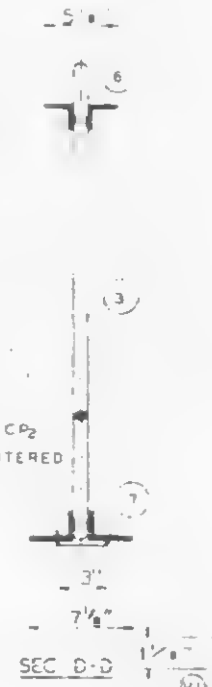
ALL PANEL POINTS RESISTANCE WELDED ... ARC WELDS INDICATED AT SHADED AREA AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 ST291, ST292, AND ST2..

CHORD PLATE DETAILS SHOWN ON SHEET ST280. SEE SHEET ST295 FOR V1, V2, & V3 DETAILS. LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., A. LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-6.

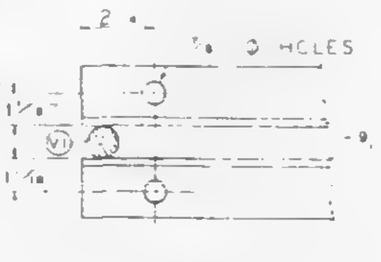
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¹⁄₁₆" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |





SEC D-D



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-22-68 | GENERAL | T.M.C. |
| 1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB3-2 | [illegible]-68 |
| 7-AB4-50 5 | 10-20-67 |

PRINT LACLEDE STEEL ... REQ. NO. 10-2

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7E-593 | 6 | A242 | 2"x1½"x.3 | 59'-3" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4"= 46'-8" | 11 | 1.09 | 58'-9¾" | 4 | 1.09 | 3" | CP2 | A36 | ¼x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7E-593 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-1¼" | | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7E-593 | 9 | A242 | 2"x1½"x.25 | 1'-2" | 6'-3½" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅞ | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — |

STEEL TRUSS DETAILS

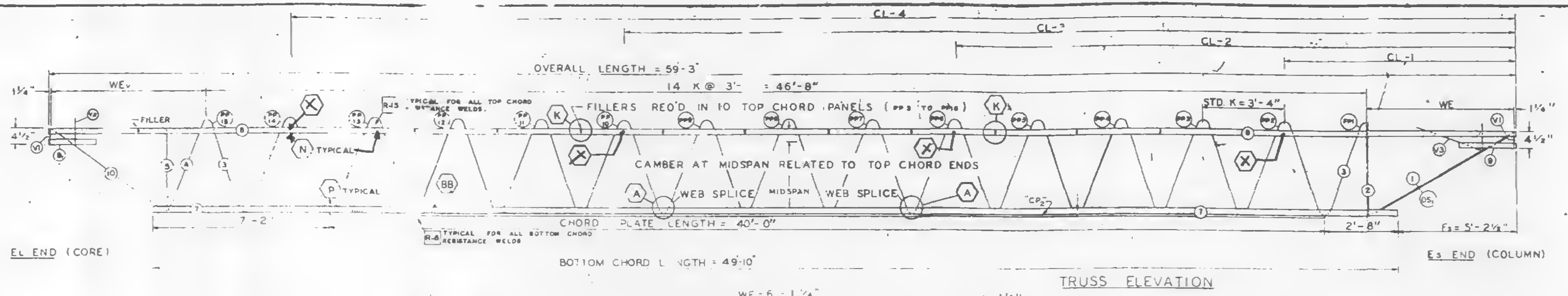
... AUTHORITY

FLOOR TRUSS C32T7E 59'-3" OVERALL

WORLD TRADE CENTER TOWER A-B

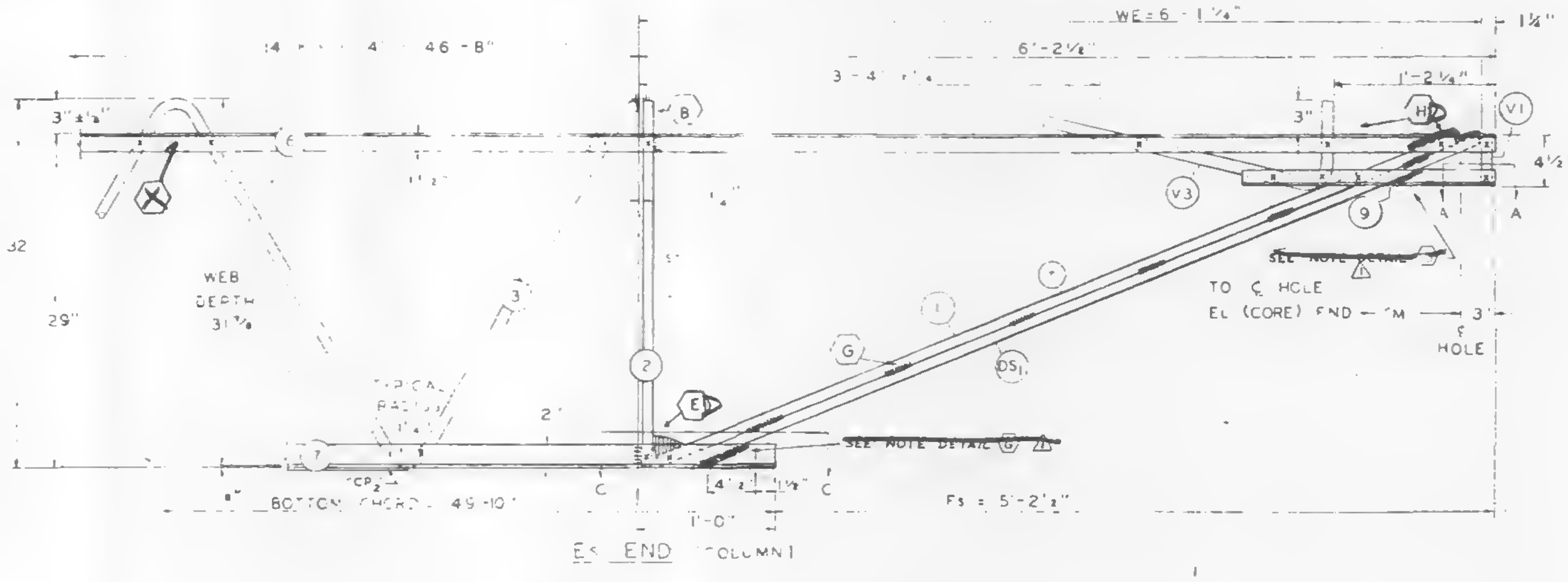
FABRICATION BY ... COMPANY

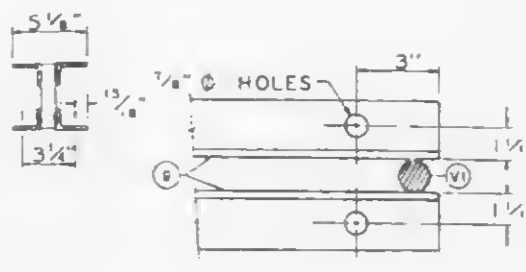
| | |
|---|---|
| FABR. LATEST ... | DRAWING NO. 7-AB1-4 7-AB3-2 |
| APPROVED FOR FABR. ... BY JW ... 4/29/68 | DRAWN BY ... DATE APR. 18, 1968 |
| APPROVED FOR FABR. ... BY ... | CHECKED BY T M CHURA ... DATE APR 18, 1968 |
| DETAILED BY ... C WEBER | ... 221 | SHEET NO. ST207E |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP8)
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLER
WE
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
CP2
7'-2"
CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
2'-8"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

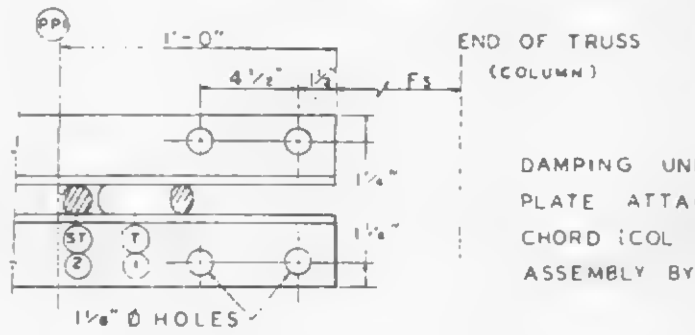




SECTION A-A

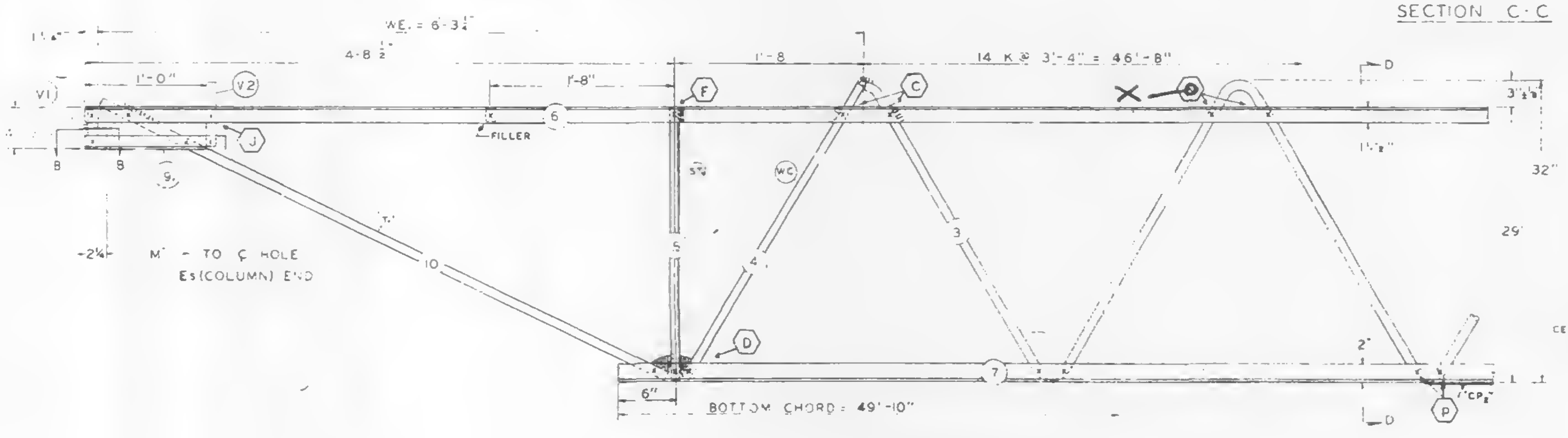
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST28D.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

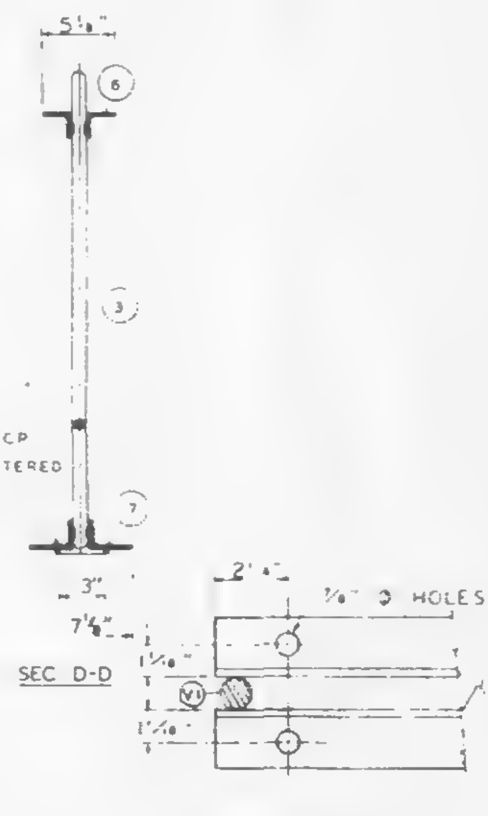


SECTION C-C

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SECTION B-B

6/13/68 WAB

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-5-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" ℄ HOLE | TRUSS DATA | | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T7E-593 | 6 | A242 | 2"x1½"x.3 | 59'-3" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58-9¾ | | | CP2 | A36 | ¼x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T7E-593 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .75 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

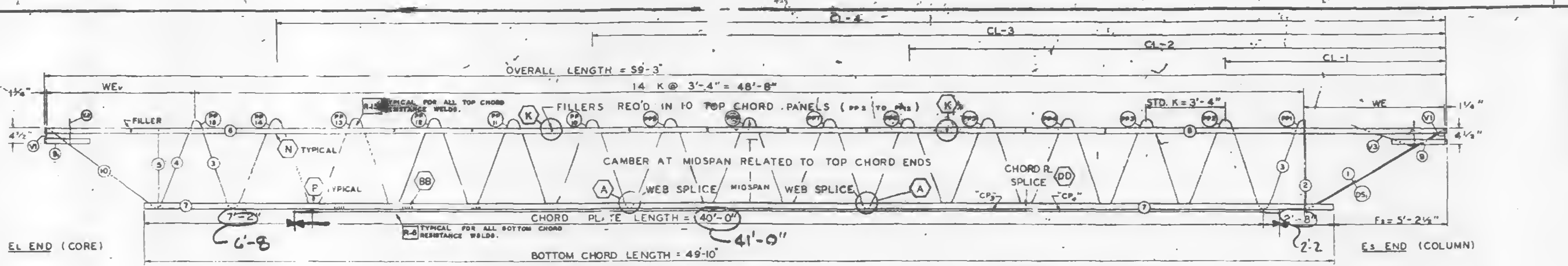
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T7E-593 | 9 | A242 | 2"x1½"x.25 | 1'-2" | 6'-3½" | D | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

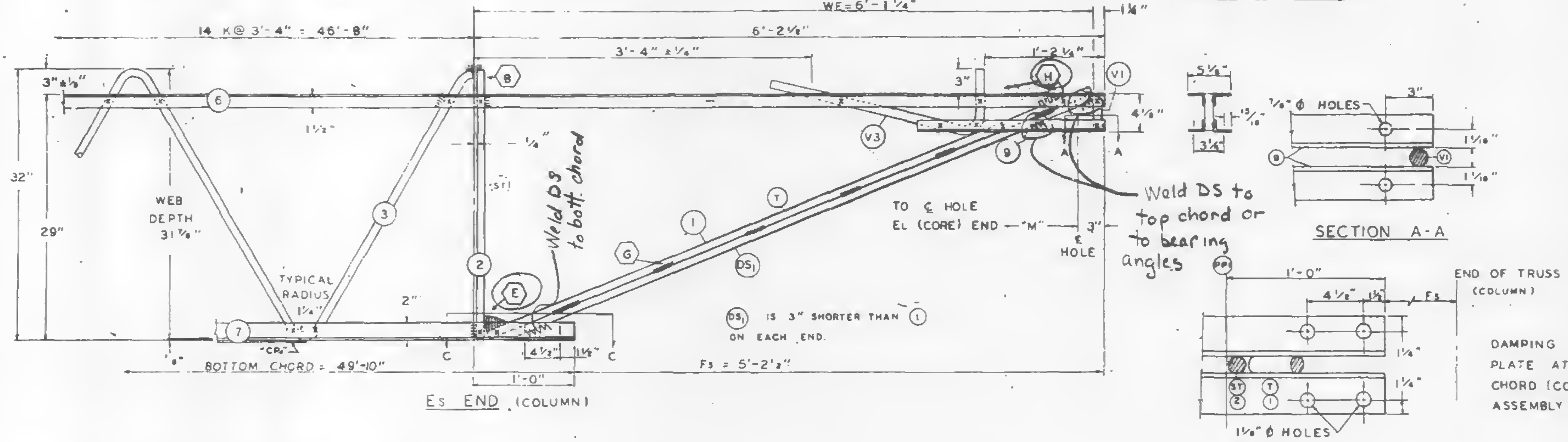
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-4 7-AB3-2
APPROVED FOR FABRICATION DATE BY
DRAWN BY
DATE APR. 18, 1968
APPROVED FOR FABRICATION DATE BY LACLEDE STEEL
CHECKED BY I.M. CHURA
DATE APR. 18, 1968
IN CHARGE
FABRICATION CONT. NO. WTC 221
SHEET NO. ST207E
DETAILED BY A.C. WEBER


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 K @ 3'-4" = 46'-8"
WEv
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP12)
STD. K=3'-4"
WE
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
CHORD R. SPLICE
WEB SPLICE
MIDSPAN
WEB SPLICE
CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
Fs = 5'-2½"
6'-8
41'-0"
2'-2

EL END (CORE)

Es END (COLUMN)

## TRUSS ELEVATION



Es END (COLUMN)

SECTION A-A

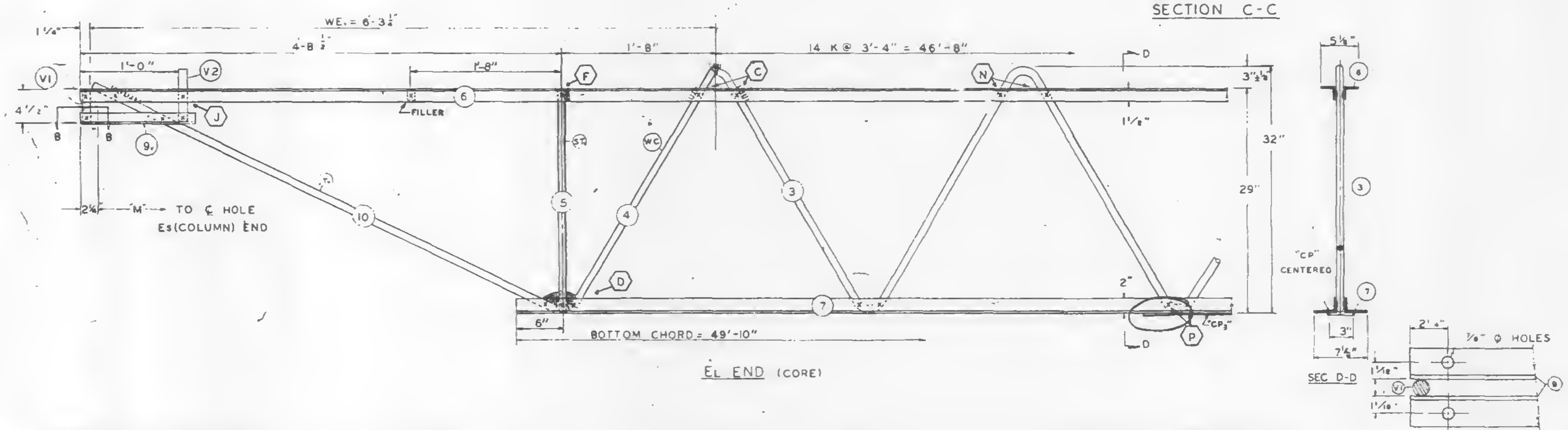
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59' 3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/8" |



EL END (CORE)

SEC D-D

SECTION B-B

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | TRUSS DATA | | CHORD PLATE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA. | | | | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T7E-593 | 6 | A242 | 2"x1⅛"x 31 | 59'-3" | 7 | A36 | 3"x2"x 33 | 49'-10" | 3 | A36 | 109 | 87'-2½" | 14 @ 3'-4"= 46'-8" | 11 | 1.09 | 58'-9¾" | | | CP | A36 | ¼"x3 | 30'-0" | CP₄ | A36 | ¼"x3" | 10'-0" |

11'-0"

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T7E-S93 | 9 | A242 | 2"x1⅛"x 25 | 1'-10" | 6'-1¼" | 1 | A36 | 1.09 | 6'-5" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 109 | 4⅝" | | 1.09 | 2'-9½" | DS | A242 | .92 | 5'-11" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

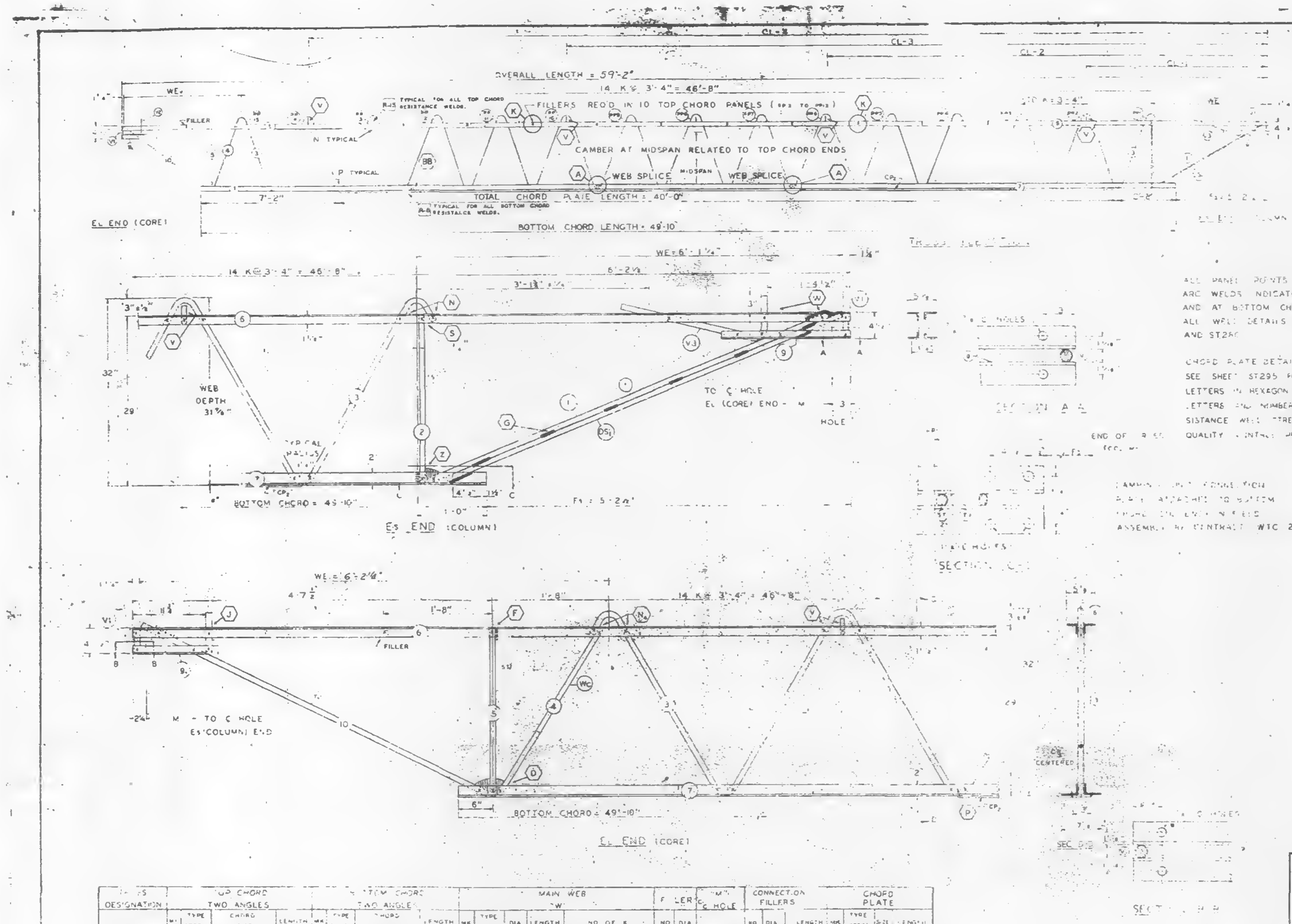
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH |
| | C32T7E-593 | 9v | A242 | 2"x1⅛"x 25 | 1'-2" | 6'-3¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — |

4/26/68 SK

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-4 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE
DRAWN BY
DATE APR. 18, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T M CHURA
DATE APR. 18, 1968
IN CHARGE OF PROD DEV
DETAILED LACLEDE STEEL CO. F.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO ST207E



ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST28[illegible]

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, A
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, R-6

[illegible] CONNECTION
[illegible] ATTACHED TO BOTTOM
[illegible] IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¼" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-2" | ± 3/8" |
| WEB DEPTH | 31⅞" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

| REF DRWGS | | |
|---|---|---|
| | 7-AB1-4 | 7-22-68 |
| | 7-AB-32 | 2-25-68 |
| | 7-AB1-33 | 7-22-68 |
| | 7-AB4-30 | 8-1-68 |
| | 7-AB3-2 | [illegible] |
| | 7-AB4-30 | 10-20-67 |

[illegible]
LACLEDE EIGHTH COAT
REQ [illegible] 002

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7F 592 | 6 | A242 | 2"x1 [illegible] x 3 | 59'-2" | 7 | A36 | 3"x2"x 3[illegible] | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 x 3'-4" = 46'-8" | 11 | 1.09 | 58 8¾ | 4 | 1.09" | 3" | CP | A36 | 4x3 | 40'-0" |

COLUMN END

| ES END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "D" STRUT | | | | VERTICAL "S" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7F 592 | 9 | A242 | 2"x1"x"x 25 | [illegible]'-3 | 6'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9-[illegible]" | DS | A242 | .92 | 5'-3[illegible]" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | FS |
|---|---|---|---|---|
| 9'-6½" | 22'-10" | 35'-2¾" | 49'-6¾" | 55'-2¼" |

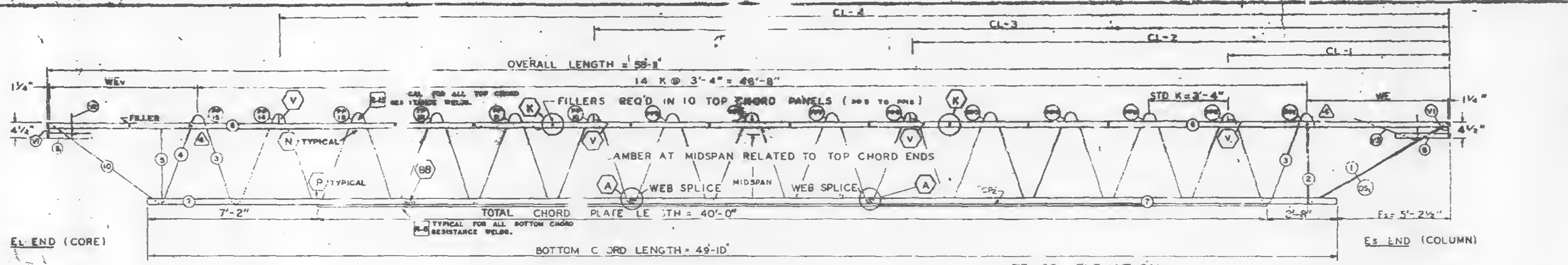
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE. | DIAGONAL "D" STRUT | | | | VERTICAL "S" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7F 592 | 9 | A242 | 2"x1"x"x 25 | [illegible] | 6'-2⅝" | 10 | A242 | 1.14 | 5'-0⅛" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞ | A242 | 1.14 | 7⅞ | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

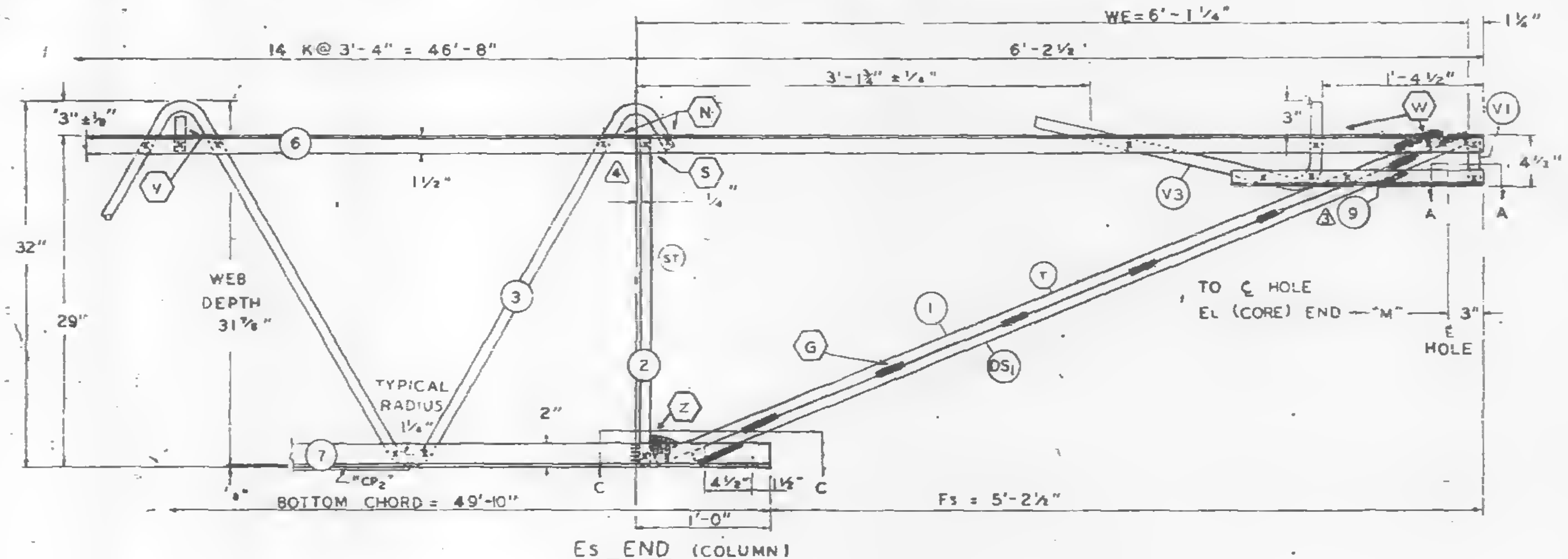
STEEL TRUSS DETAILS
[illegible]
[illegible] AUTHORITY
FLOOR TRUSS C32T7F 59'-2" OVERALL
WORLD TRADE CENTER TOWER A-B

[illegible] COMPANY

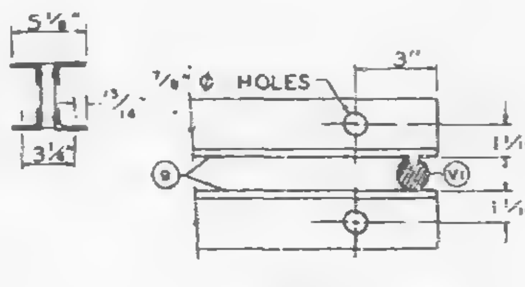
7-AB1-4 7-AB3-2
DATE 3/6/69
MAR 6, 1969
MAR 6, 1969
James White
221
ST207F


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14 K @ 3'-4" = 46'-8"
STD K = 3'-4"
1⅛"
WEv
WE
4½"
FILLER
FILLERS REQ'D IN 10 TOP CHORD PANELS (ODD TO ODD)
CAL FOR ALL TOP CHORD RESISTANCE WELDS
N TYPICAL
P TYPICAL
BB
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
CP2
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-8"
Fs = 5'-2½"
EL END (CORE)
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)

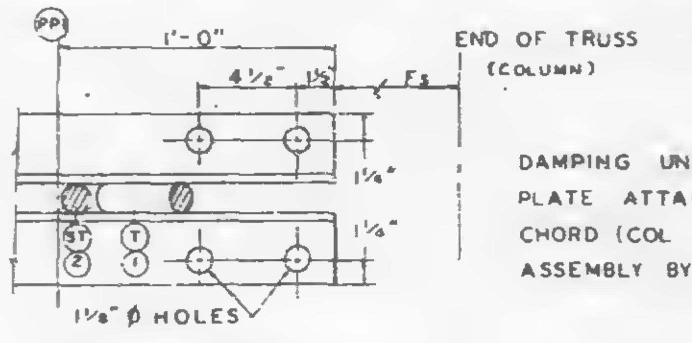
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



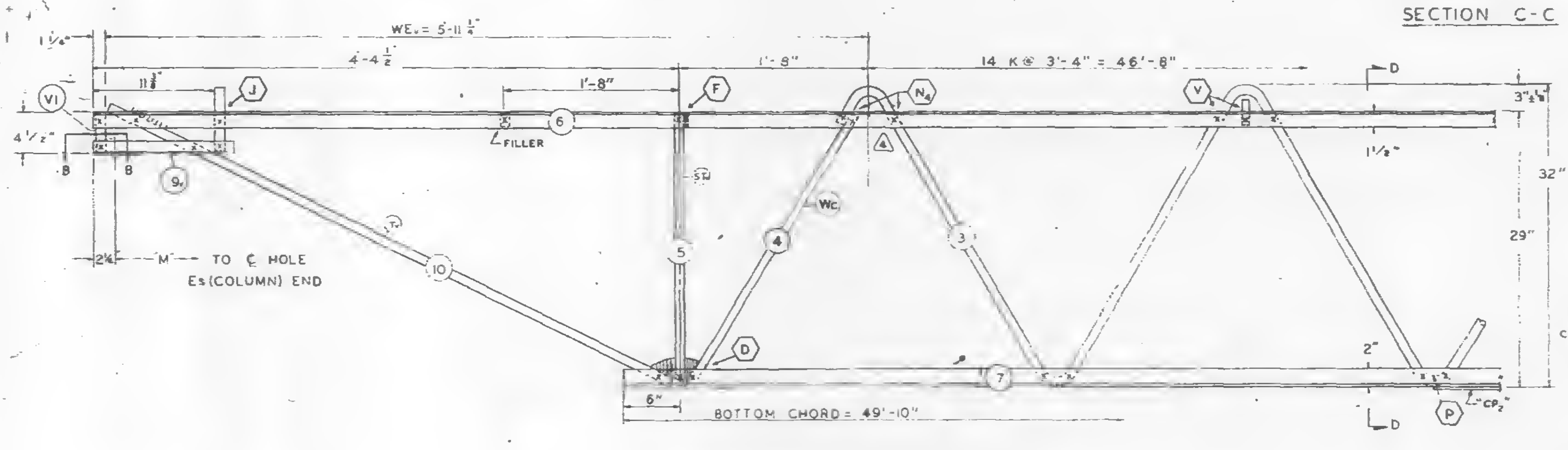
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (shaded).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST28D. ④

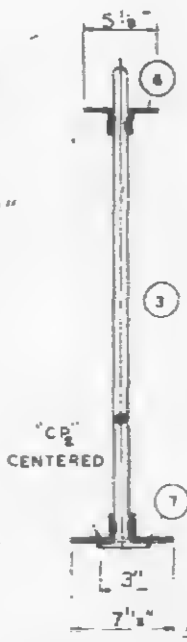
CHORD PLATE DETAILS SHOWN ON SHEET ST28D.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.

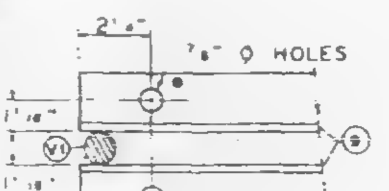
| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2½" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "H" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB - DEPTH | 31 7/8" | ± 1/4" |



EL END (CORE)



SEC D-D



SECTION B-B

| NO. | DATE | REVISION | |
|---|---|---|---|
| ④ | 12-9-68 | AS NOTED | G.D.C. |
| ③ | 7-22-68 | MK. ⑨ LENGTH | T.M.C. |
| ② | 6-22-68 | GENERAL | T.M.C. |
| ① | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

④ REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | ④ LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7G-5811 | 6 | A242 | 2"x1½"x.31 | 58'-11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-5¾" | 4 | 1.09" | 3" | CP2 | A36 | ¼x3 | 40'-0" ① |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | ③ LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | ④ LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7G-5811 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" ① | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" ① |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

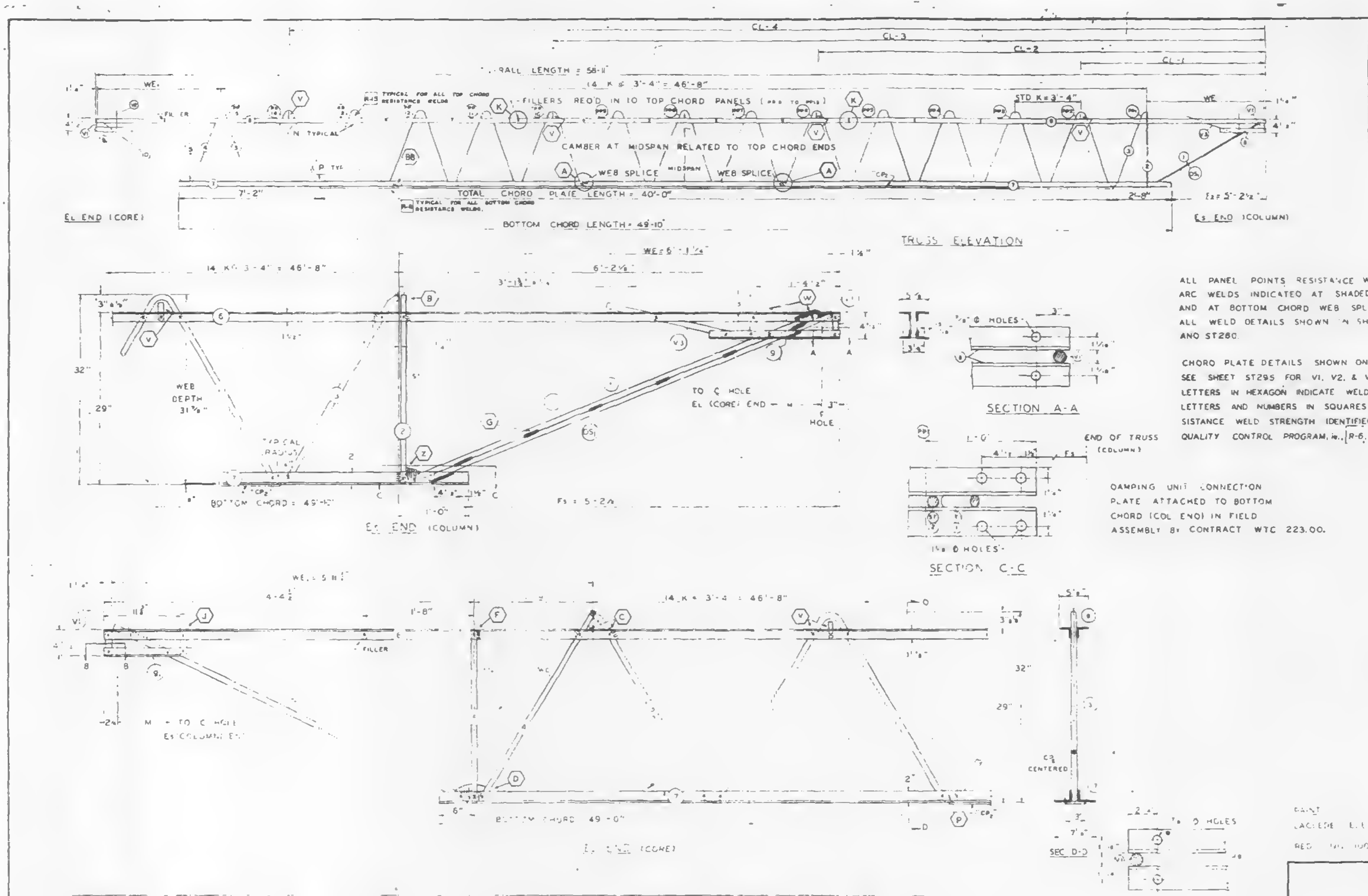
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | STIFFENER MK. V1 | | | STIFFENER MK. V2 | | | STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | ④ LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | ④ LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7G-5811 | 9v | A242 | 2"x1½"x.25 | 1'-1½" | 5'-11¼" | 10 | A242 | 1.14 | 4'-9½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-4 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. | DATE 12/11/68 | DRAWN BY LWH DATE APR. 18, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA DATE APR. 18, 1968 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO. DETAILED BY A.C. WEBER | | FABRICATION CONT NO WTC 221 | SHEET NO ST207G |



ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN IN SHEETS ST290, ST291, ST292
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | FILLER | | M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7G-58'11 | 6 | A242 | 2"x1½"x.[illegible] | 58'11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 x 3'4" = 46'-8" | 11 | 1.09 | 58·5¾" | 4 | 1.09" | 3" | C9 | A36 | [illegible]x3 | 40'-0" |

| | | CHECK DIMENSION FOR TRUSS FAB | | | |
|---|---|---|---|---|---|
| LOCATION OF TRANS TRUSS | | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | F₀ |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7G-58'11 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | | A36 | 1.09 | 6'-3½" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7G-58'11 | 9 | A242 | 2"x1½"x.25 | -1½ | 5'-11⅞ | 10 | A242 | 1.14 | 4'-9⅛ | 5 | A242 | 1.14 | 2'-4⅞" | A242 | | 4½ | A242 | 1.14 | 7½" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 7-22-68 | MK ⑨ | T.M.C. |
| 2 | 6-22-68 | GENERAL | T.M.C. |
| 1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

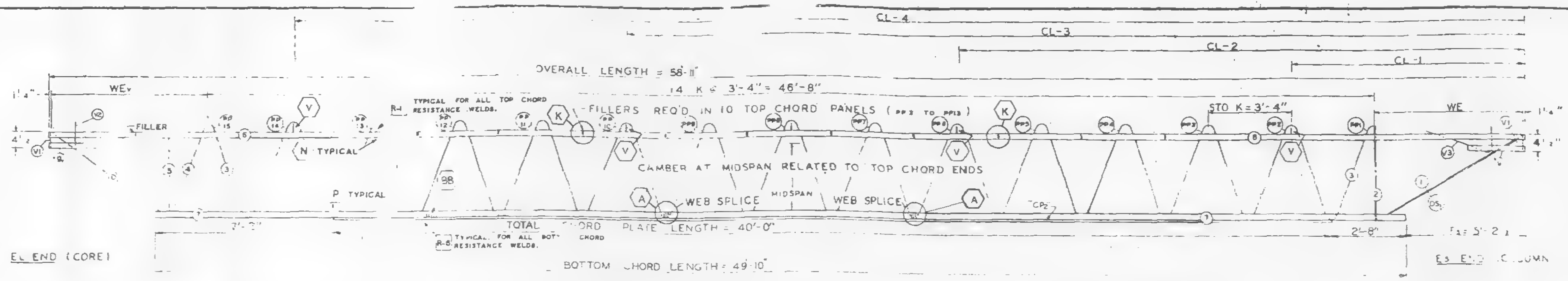
| | |
|---|---|
| 7-AB1-4 | 4-5-68 |
| 7-AB-52 | 2-15-68 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | [illegible] 68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE [illegible]
RED [illegible] 1009

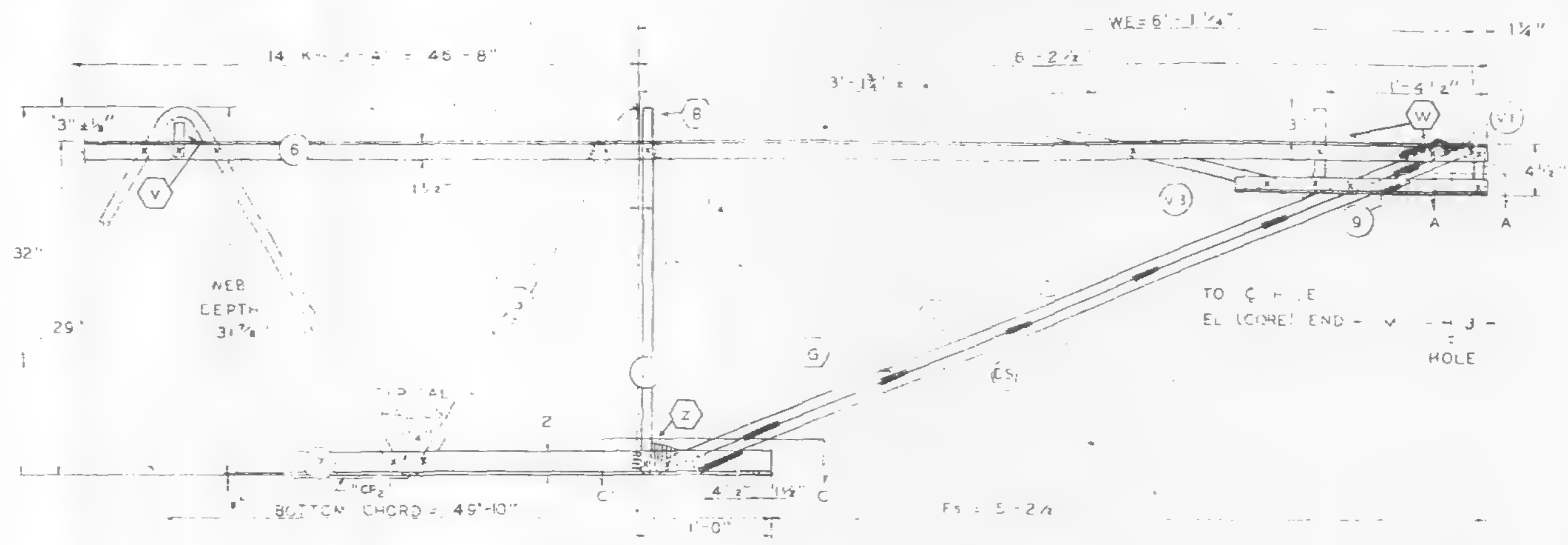
STEEL TRUSS DETAILS
[illegible]
[illegible] AUTHORITY

FLOOR TRUSS C32T7G 58'11" OVERALL
WORLD TRADE CENTER TOWER A-B

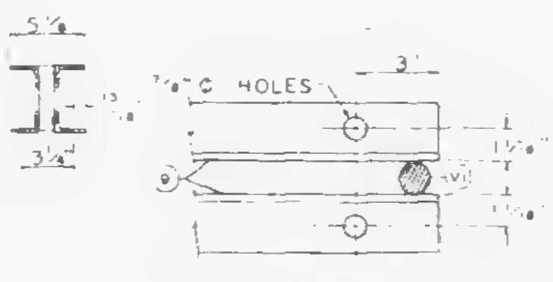
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT [illegible]
DRAWING NO 7-AB1-4 7-AB3-2
APR 18, 1968
APR 18, 1968
CHURA
IN CHARGE OF
LACLEDE
DETAILED BY
221
SHEET NO ST207G


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14 K @ 3'-4" = 46'-8"
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
FILLER
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
P TYPICAL
WEB SPLICE
MIDSPAN
WEB SPLICE
TOTAL CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)
Fs = 5'-2½"
2'-8"

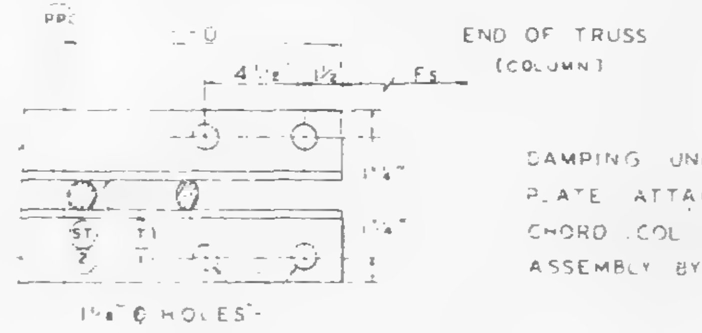
TRUSS ELEVATION



EL END (COLUMN)



SECTION A-A

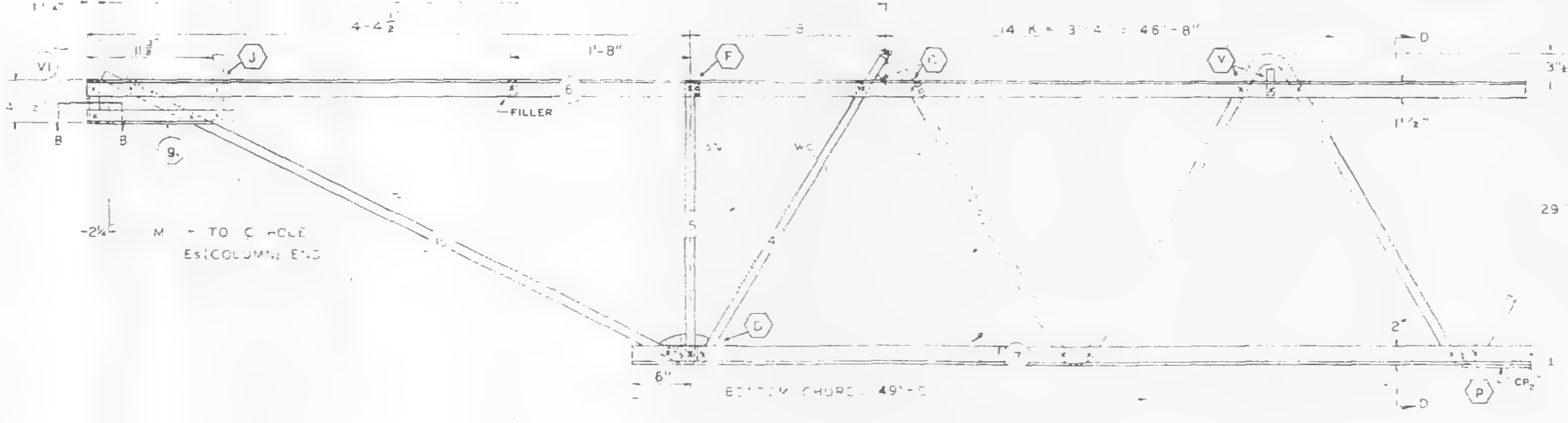


SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ( ).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292
AND ST280.

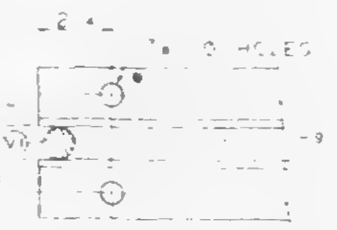
CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST235 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)

SEC D-D



SECTION B-B

| | | | |
|---|---|---|---|
| FABRICATION REQUIRMENTS | | | |
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | [illegible]-7/8" | ± 1/[illegible]" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-22-68 | GENERAL | T.M.C. |
| 1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| T-AB1-4 | 4-15-68 |
| T-AB-52 | 2-15-68 |
| T-AB1-53 | 4-1-68 |
| T-AB4-50 & 50.2 | 10-20-67 |
| T-AB3-2 | [illegible]-64 |
| T-AB4-50.5 | 10-20-67 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7G-58'11" | 6 | A242 | 2"x1½"x[illegible] | 58'-1" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | .09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-5¾" | 4 | 1.09" | 3" | CP | A36 | ¼x3 | 40'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-5½" | 5'-2½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7G-58'11" | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-1¼" | | A36 | .09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅛" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS | A242 | .92 | 6'-3⅛" |

CORE END

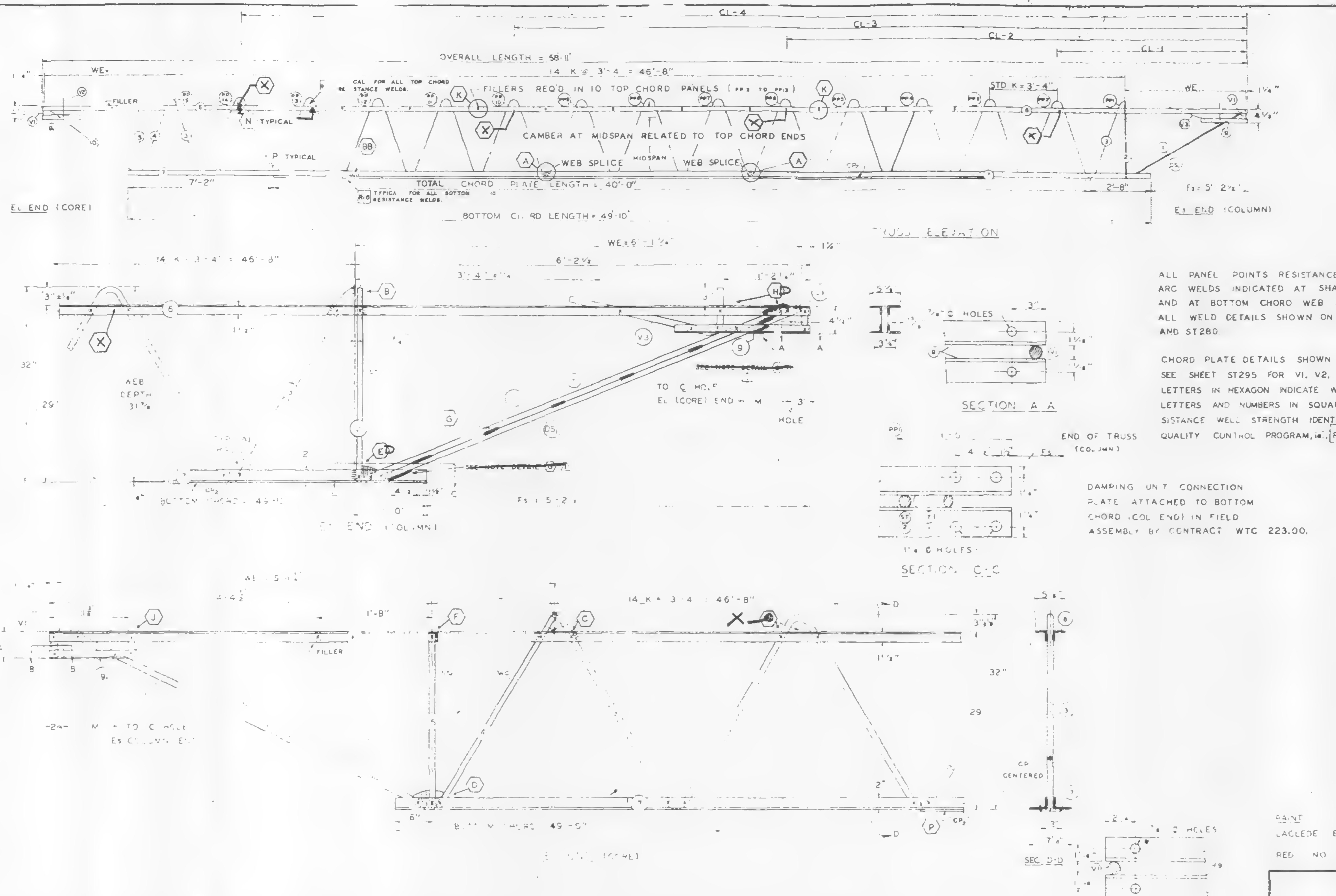
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK J2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7G-58'11" | 9 | A242 | 2"x1½"x.25 | -1½" | 5'-11½" | 10 | A242 | 1.14 | 4'-9½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅞ | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — |

STEEL TRUSS DETAIL

[illegible] AUTHORITY

FLOOR TRUSS C32T7G 58 [illegible]
WORLD TRADE CENTER TOWER A-B

T-AB3-2
APPROVED FOR FABRICATION 6/25/68
APR. 18, 1968
T.W. CHURA
APR 18, 1968
221
ST207G



ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | 3' 8" | ± 1/4" |

6/13/68 WAB

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 5-27-68 | CHORD PLATE, WELD, T DIAGONAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-5-66 |
| 7-AB1-52 | 2-15-66 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50-2 | 10-20-67 |
| 7-AB3-2 | [illegible] |
| 7-AB4-50-[illegible] | [illegible]-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | TRUSS DATA | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7G-5811 | 6 | A242 | 2"x1½"x.3 | 58'-11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58-5¾ | | | CP | A36 | 4x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7G-5811 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .75 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

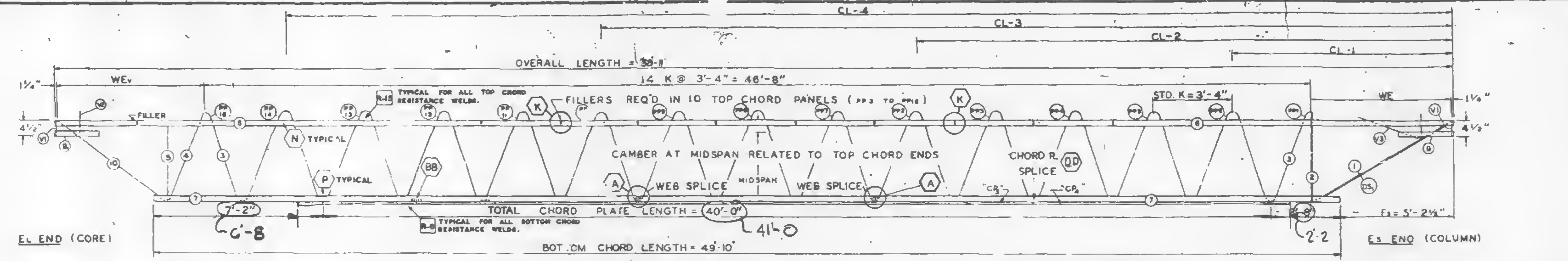
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENG | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7G-5811 | 9 | A242 | 2"x1½"x.25 | 1-1½ | 5-1½ | 10 | A242 | 1.14 | 4'-9½ | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4½ | A242 | 1.14 | 7½ | — | — | | 4 | A242 | 1 | 1.14 | 3'-0½" | | — | — | — | — |

STEEL TRUSS DETAILS
[illegible]

FLOOR TRUSS C32T7G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DRAWING NO 7-AB1-4 7-AB1-2
APPROVED FOR FABRICATION DATE
FOR PONYA
DRAWN BY [illegible]
DATE APR 18, 1968
APPROVED FOR FABRICATION DATE
FOR FABRICATOR
CHECKED BY T.M. CHURA
DATE APR 18, 1968
DETAILED BY A.C. WEBER
221
ST207G

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 1/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14 K @ 3'-4" = 46'-8"
STD. K = 3'-4"
WE₁
WE
1¼"
4½"
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
R-15
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
K
N TYPICAL
P TYPICAL
BB
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
CHORD R. SPLICE
QQ
A
WEB SPLICE
MIDSPAN
WEB SPLICE
"CP₁"
"CP₂"
DS₁
TOTAL CHORD PLATE LENGTH = 40'-0"
41'-0
7'-2"
6'-8
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
R-6
2'-2
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"

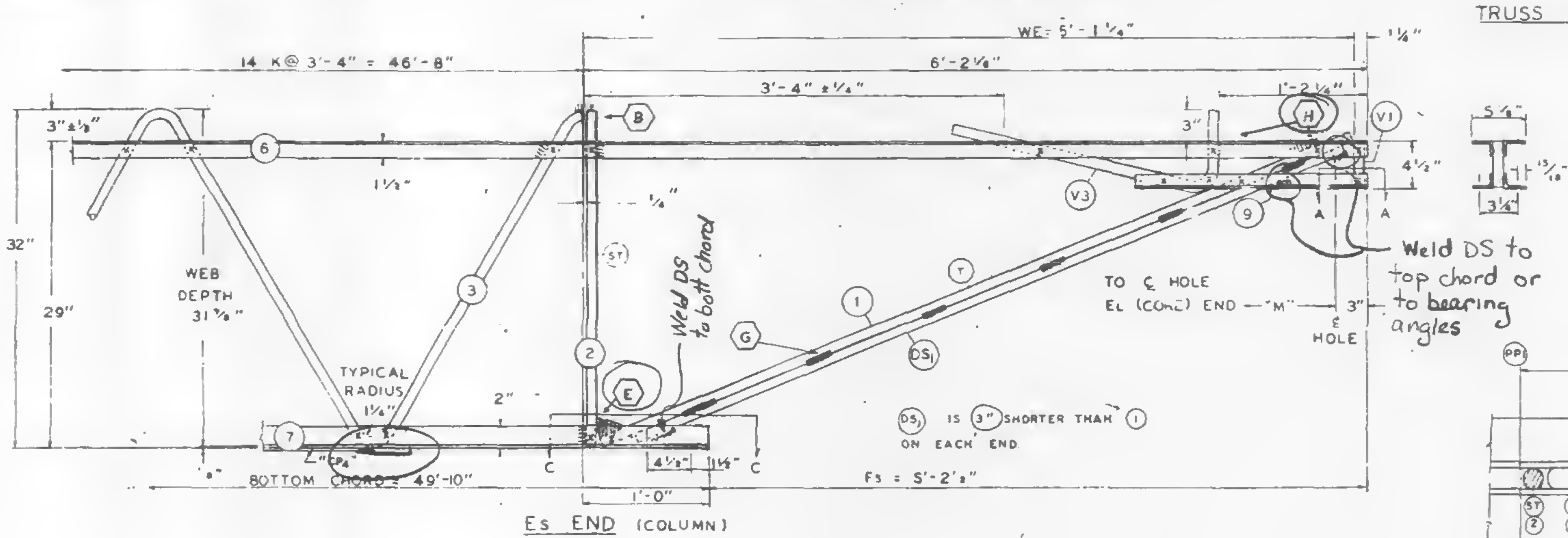
EL END (CORE)

Es END (COLUMN)

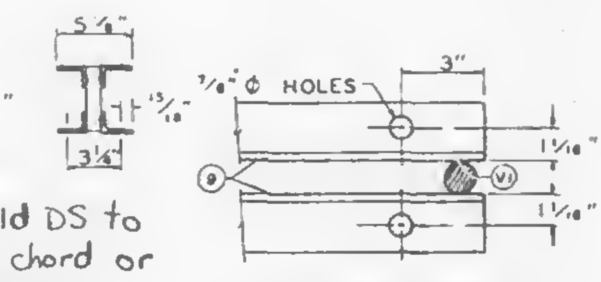
TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST280.

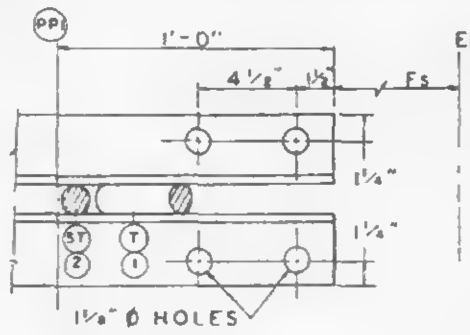
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RE-SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.



Es END (COLUMN)



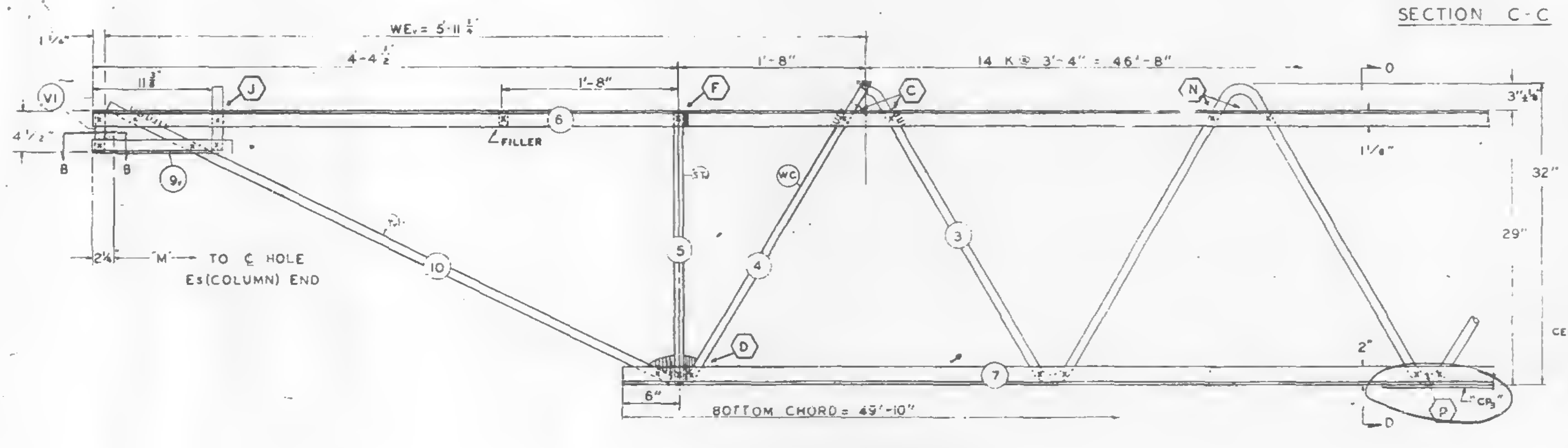
SECTION A-A



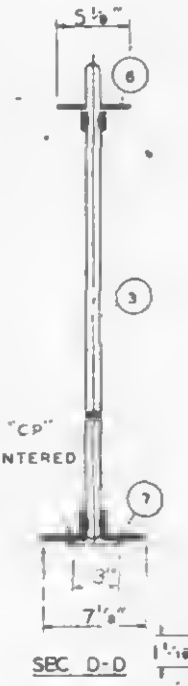
END OF TRUSS (COLUMN)

SECTION C-C

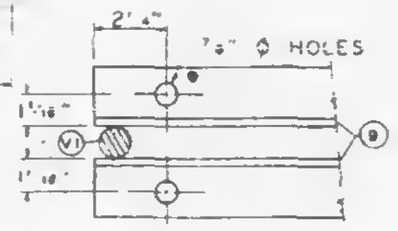
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC D-D



SECTION B-B

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 4-15-68 |
| 7-AB1-52 | 2-15-66 |
| 7-AB1-53 | 4-1-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | TRUSS DATA | | CHORD PLATES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | | | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7G-5811 | 6 | A242 | 2"x1½"x.31 | 58'-11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-5¾" | | | CP₁ | A36 | ¼x3 | 30'-0" | CP₂ | A36 | ¼x3" | 10'-0" |

11'-0"

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T7G-5811 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | 1 | A36 | 1.09 | 6'-5" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅝" | [illegible] | [illegible] | 2'-9⅛" | DS₁ | A242 | .92 | 5'-11" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE₁ | DIAGONAL "T₁" STRUT | | | | VERTICAL "ST₁" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA. | LENGTH |
| | | C32T7G-5811 | 9₁ | A242 | 2"x1½"x.25 | 1'-1¼" | 5'-11½" | 10 | A242 | 1.14 | 4'-9½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0⅛" | - | — | — | — | — |

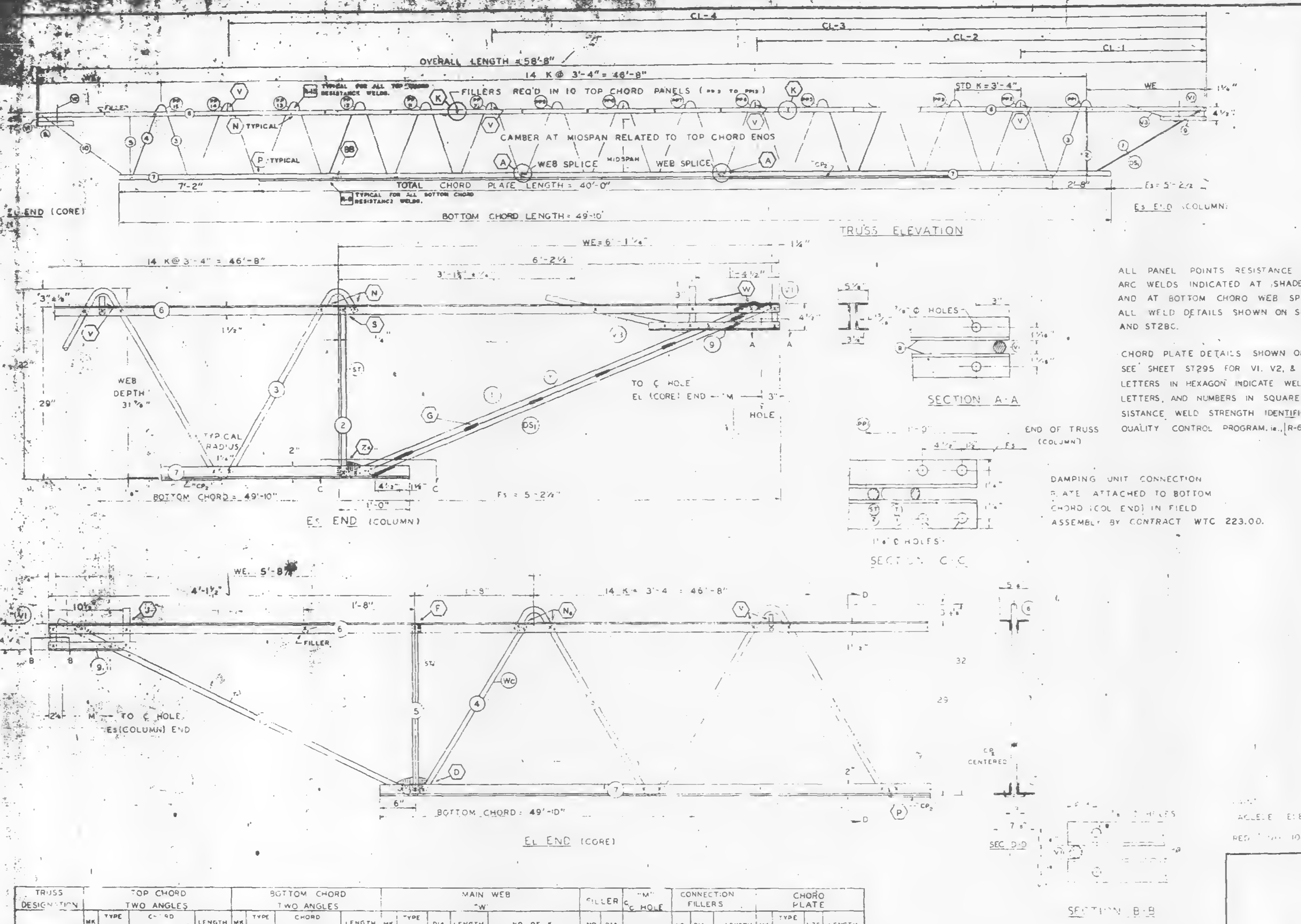
X
4/26/68 SK

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-AB1-4 7-AB3-2. PLATE | |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE | DRAWN BY L.W.H. DATE APR. 18, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY T.M. CHURA DATE APR. 18, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A.C. WEBER | FABRICATION CONT NO WTC 221 | SHEET NO ST207G |



ALL PANEL POINTS RESISTANCE WELDED ( ).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ( ).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST28C.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR VI, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS, AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | DESIGN | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS
7-AB1-4 7-22-68
7-AB-52 2-15-68
7-AB1-53 7-22-68
7-AB4-50 8-1-68
7-AB3-2 1-3-68
7-AB4-50.5 10-20-67

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7H 588 | 6 | A242 | 2"x1½"x.31 | 58'-8" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-2¾" | 4 | 1.09" | 3" | CP | A36 | ¼x3 | 40'-0" |

| Es | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. VI | | | MK. V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7H 588 | 9 | A242 | 2"x1¼"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅝" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3½" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. VI | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7H 588 | 9 | A242 | 2"x1½"x.25 | 1'-0½" | 5'-8" | 10 | A242 | 1.14 | 4'-7" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 2'- | — | — | — | — | — |

STEEL TRUSS DETAILS

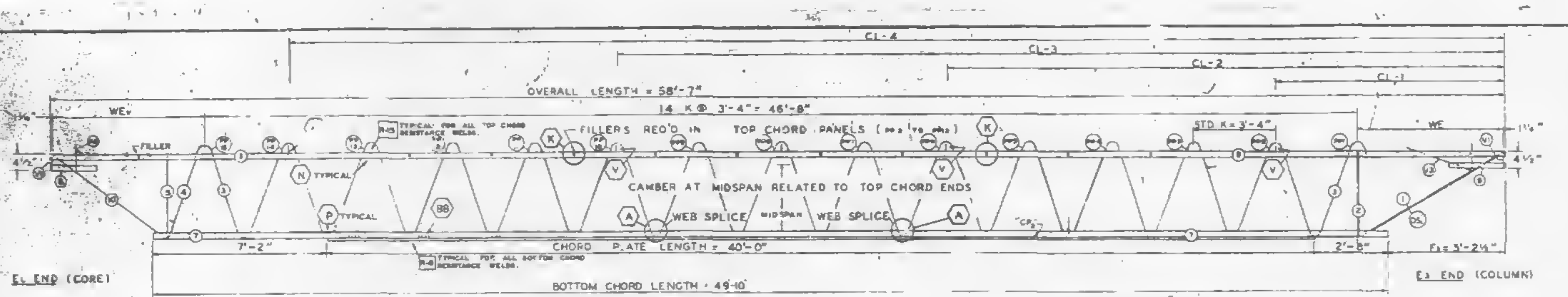
AUTHORITY

FLOOR TRUSS C32T7H 58'-8" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

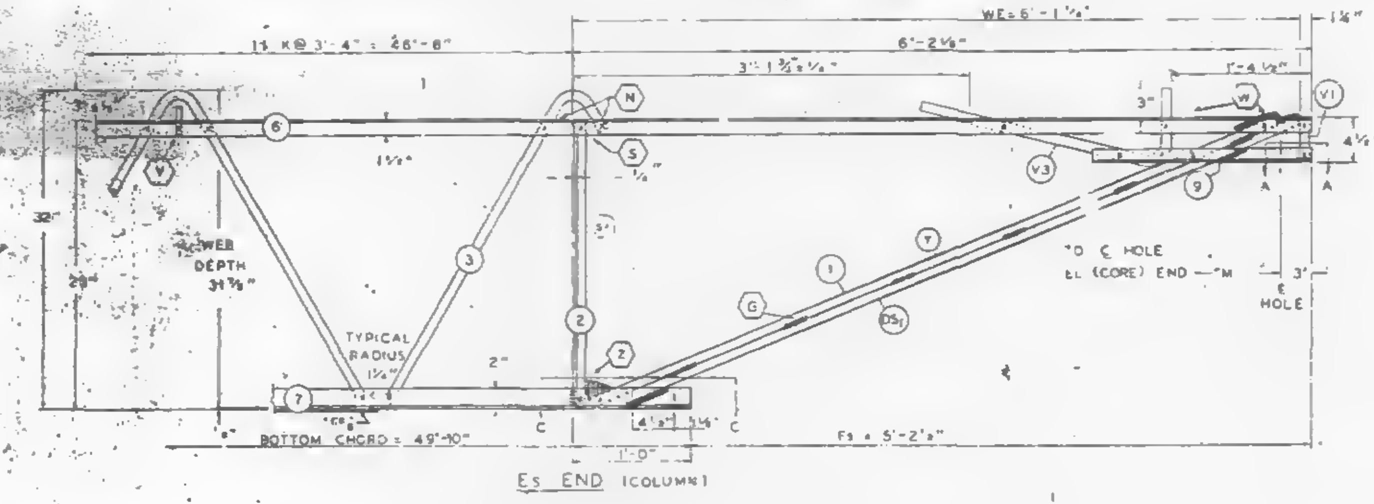
7-AB1-4 7-AB3-2

APPROVED FOR FABRICATION James White 4/25/69
DRAWN BY
DATE APRIL 10, 1969
CHECKED BY T M CHUBA
DATE APRIL 10, 1969
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
W.T.C. 221
SHEET NO ST207H

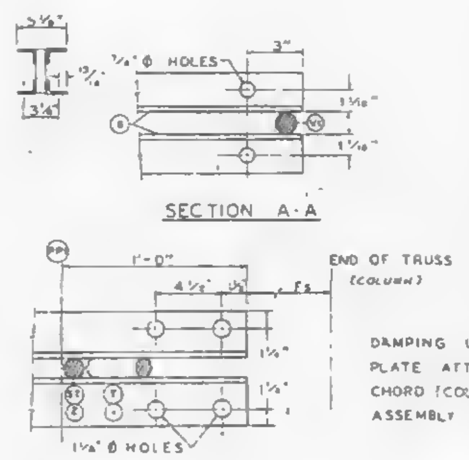


TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | [illegible] |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "S" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



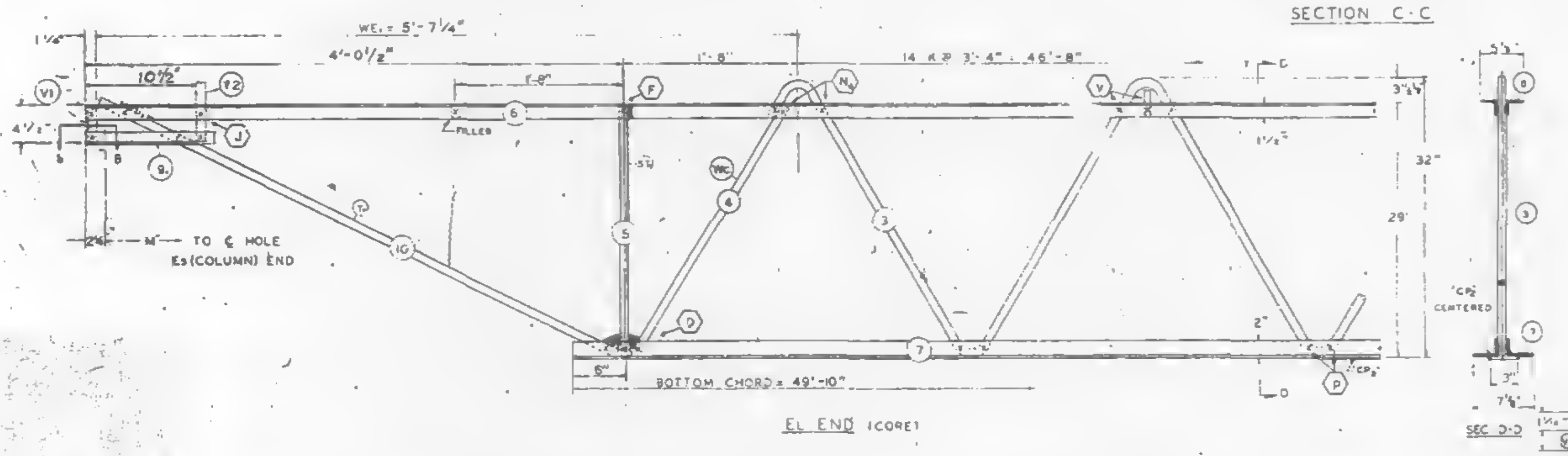
SECTION A-A

SECTION C-C

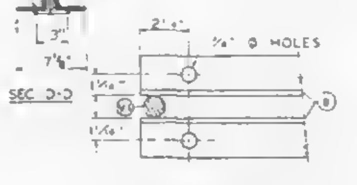
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▰).
ALL WELD DETAILS SHOWN ON SHEETS ST290. ST291, ST292, ST293.
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM.
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SECTION B-B

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF S | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7J-587 | 6 | A242 | 2"x1½"x.31 | 58'-7" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-1⅝" | 4 | 1.09 | 3" | CP2 | A36 | ¼x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7J-587 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 5'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅜" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2¼" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | NO | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7J-587 | 9L | A242 | 2"x1½"x.25 | 1'-0½" | 5'-7¼" | 10 | A242 | 1.14 | 4'-6⅞" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅝" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | — | — | — | — | — |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

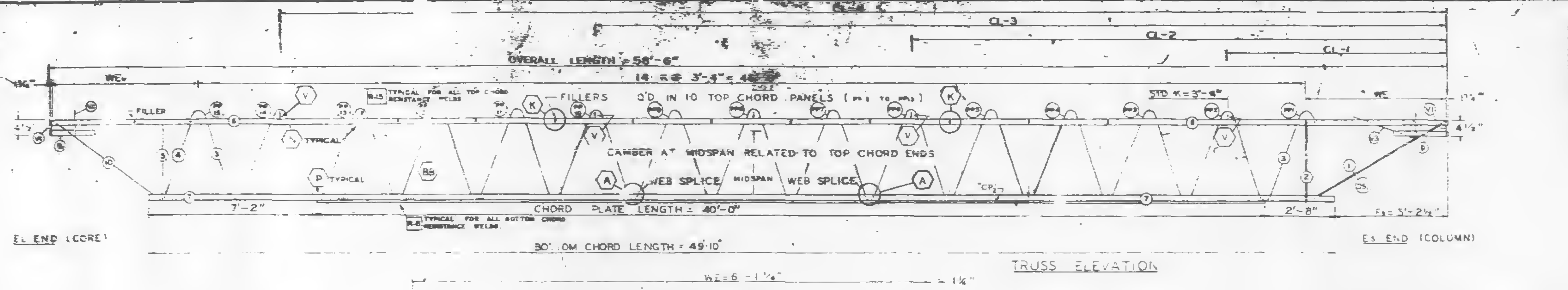
| REF DRWGS | | |
|---|---|---|
| | 7-A81-4 | 7-22-88 |
| | 7-A81-52 | 2-15-88 |
| | 7-A81-53 | 7-22-88 |
| | 7-A84-50 | 6-1-88 |
| | 7-A83-2 | 1-3-68 |
| | 7-A84-503 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

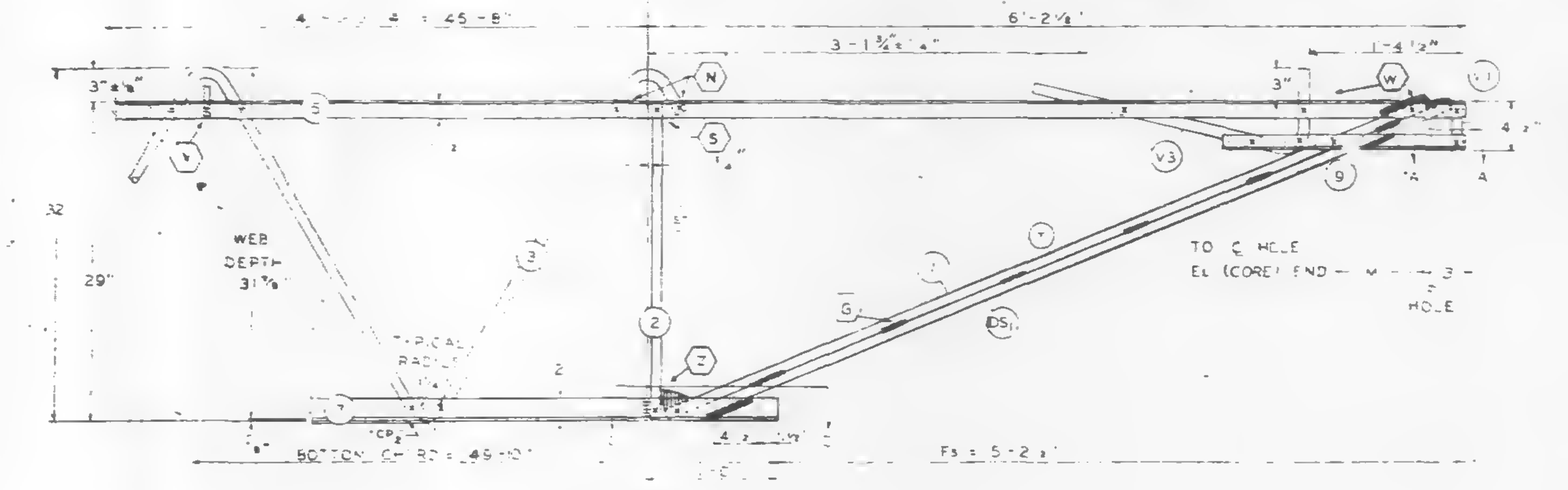
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7J 58'-7" OVERALL
WORLD TRADE CENTER TOWER A-B

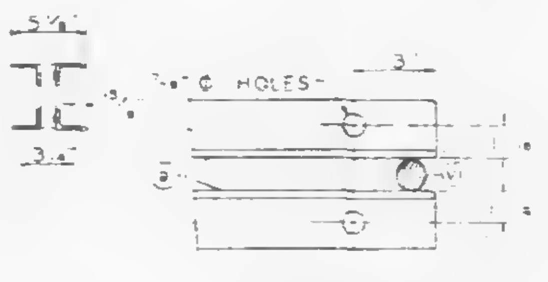
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-A81-4 7-A83-2 PLATE
APPROVED FOR FABRICATION BY James White 1/29/69
DRAWN BY [illegible] DATE JAN.7,1969
APPROVED FOR [illegible] BY [illegible]
CHECKED BY F.M.CHURA DATE JAN.7,1969
IN CHARGE OF PROD DEV
FABRICATION CONT NO WTC 221
SHEET NO ST207J
DETAILED BY R.C. WEBER


CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-6"
14 K @ 3'-4" = 46'-8"
WE
FILLERS O'D IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
FILLER
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
CHORD PLATE LENGTH = 40'-0"
7'-2"
2'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
El END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 49'-10"

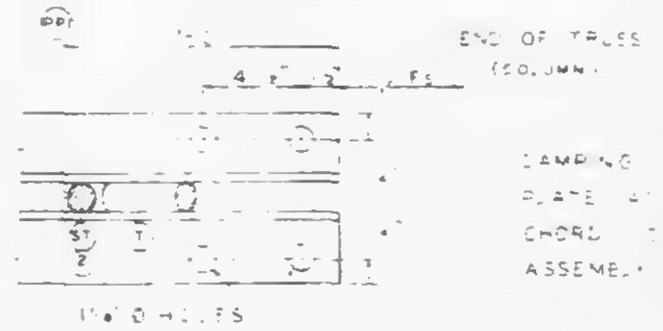
TRUSS ELEVATION



El END (COLUMN)



SECTION A-A

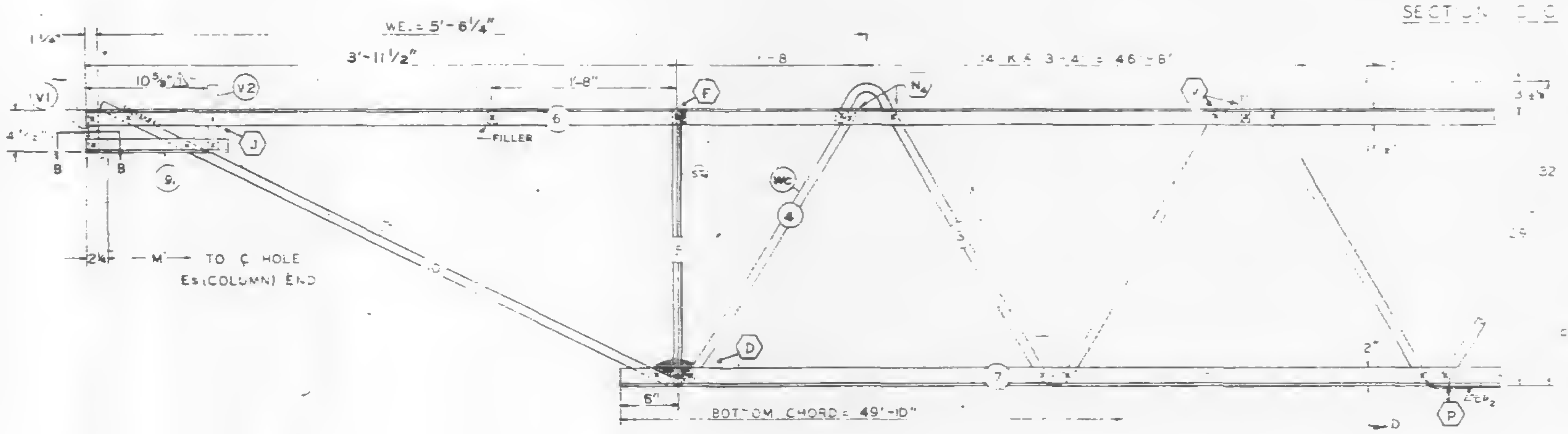


SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED. ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST28_.

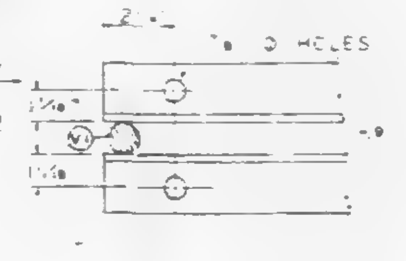
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD AT END IN FIELD ASSEMBLY BY CONTRACT WTC 223.0_



El END (CORE)

SEC D-D



SECTION B-B

| FABRICATION [illegible] | | |
|---|---|---|
| | [illegible] | |
| CAMBER AT MIDSPAN | 2⅛" | |
| DESIGN DEPTH | 29" | ⅞ |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-6" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/ |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| 1 | 2-13-69 | AS NOTED | R. IP |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50S | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄-℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7K-586 | 6 | A242 | 2"x1½"x.31 | 56'-6" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 18 | 1.09 | 58'-9¾" | 4 | 1.09 | 3" | CP2 | A36 | ¼x3 | 40'-0" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7K-586 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅞" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9 | DS | A242 | .92 | 6'-3⅞" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**CORE END**

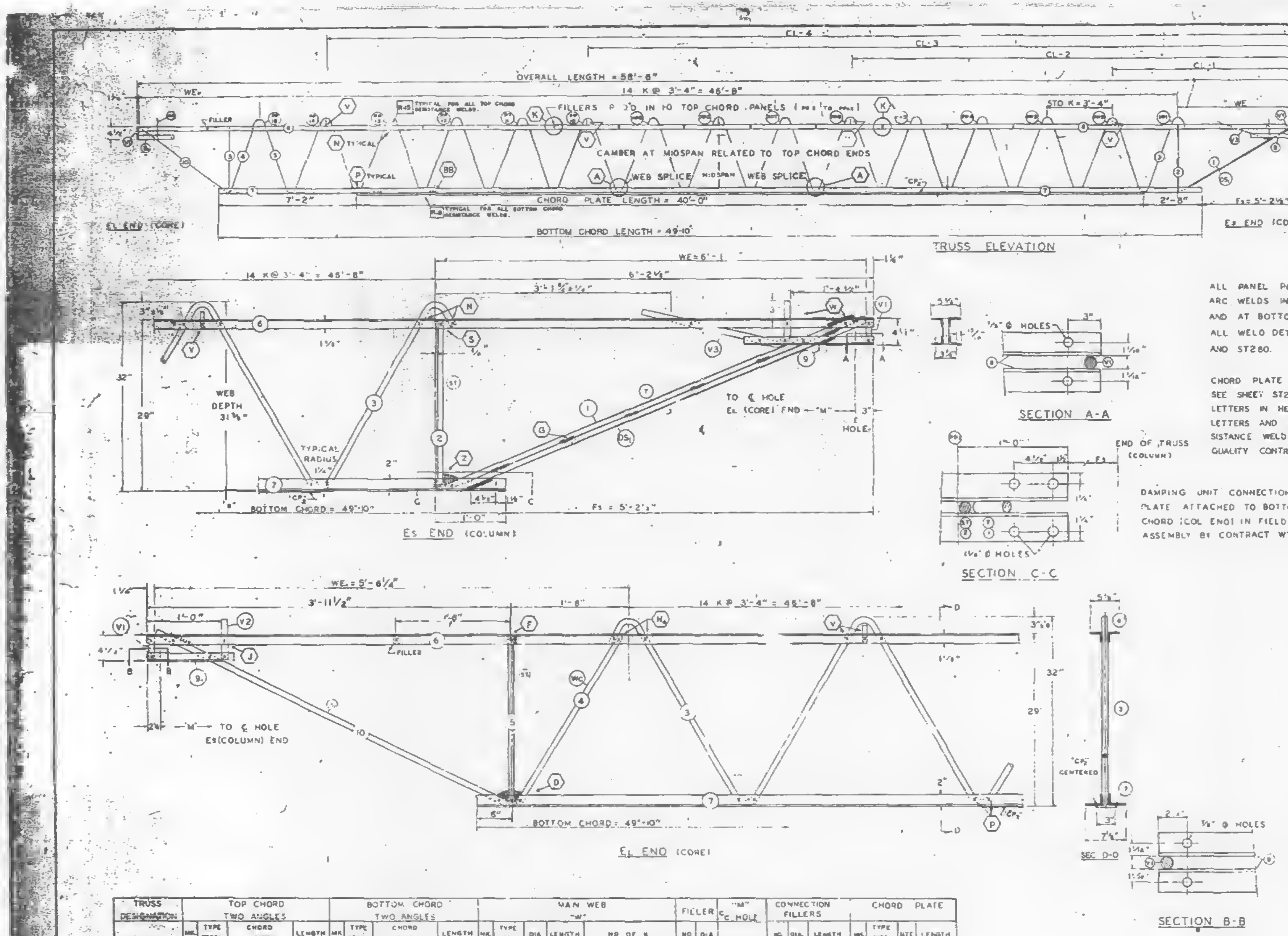
| El END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7K-586 | 9 | A242 | 2"x1½"x.25 | 1'-0½" | 5'-6¼" | 10 | A242 | 1.14 | 4'-5¼" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7K 58'-6" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON ILLINOIS | DESIGN DRAWING NO 7-AB1-4 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. DATE 2/28/69 | DRAWN BY L.R. DATE JAN. 7, 1969 | |
| APPROVED FOR FABRICATION DATE BY LACLEDE STEEL CO. | CHECKED BY T.M. CHURA DATE JAN. 7, 1969 | IN CHARGE OF PROD DEPT |
| DETAILED BY C.C. WEBER | FABRICATION CONT NO WTC 221 | SHEET NO ST287K |



ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R-6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-6" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-28-64 |
| 7-AB1-52 | 2-10-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-80 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7K-586 | 6 | A242 | 2"x1½"x.31 | 58'-6" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 15 | 1.09 | 58-9¾ | 4 | 1.09 | 3" | CP2 | A36 | ⅝x3 | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7K-588 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3/8" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅞" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2¼" | 49'-8½" | 5'-2¼" |

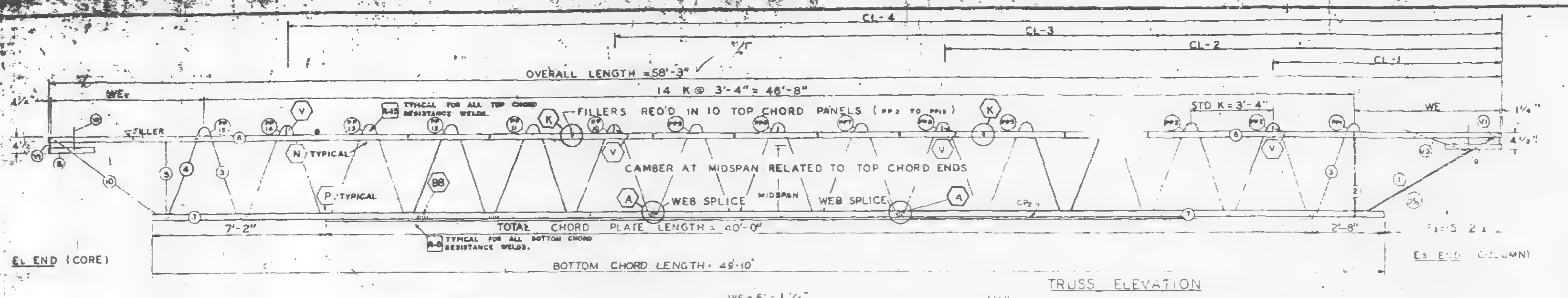
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7K-586 | 9 | A242 | 2"x1½"x.25 | 1'-0½" | 5'-6¼" | 10 | A242 | 1.14 | 4'-5¼" | 5 | A242 | 1.14 | 2'-4½" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

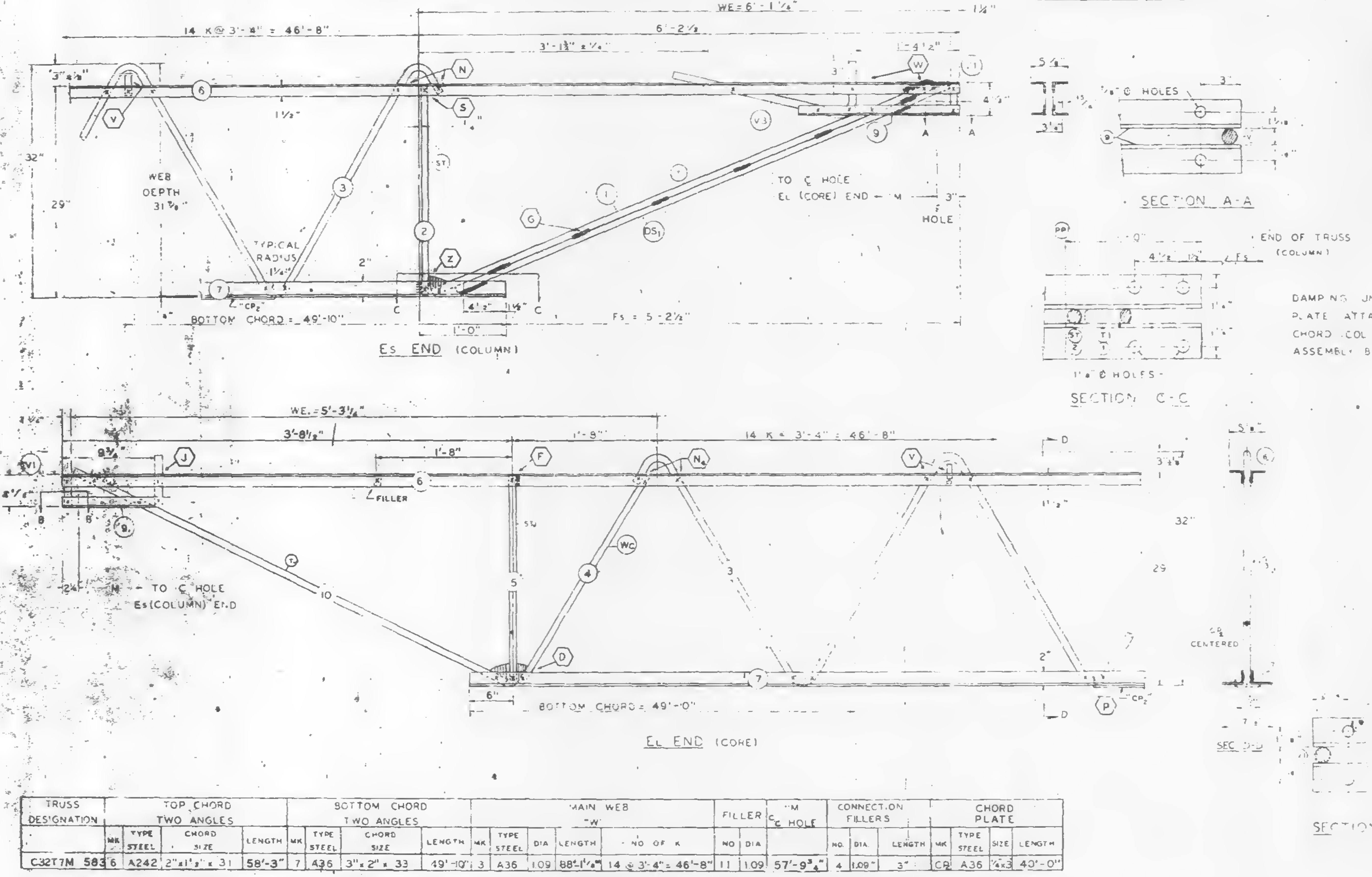
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7K 58'-6" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-4 7-AB3-2 PLATE
APPROVED FOR FABRICATION FOR PONYA James White DATE 1/29/69
DRAWN BY LH DATE JAN. 7, 1969
APPROVED FOR FABRICATION DATE BY FOR FABRICATOR
CHECKED BY T.M.CHURA DATE JAN. 7, 1969
IN CHARGE OF PROD. SEC.
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO ST257K


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-3"
WE
14 K @ 3'-4" = 46'-8"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP2 TO PP13)
STD K = 3'-4"
FILLER
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 48'-10"
EL END (CORE)
Es END (COLUMN)
Fs = 5'-2½"

## TRUSS ELEVATION



## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | [illegible] |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST280

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD COL END IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | M ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T7M 583 | 6 | A242 | 2"x1½"x31 | 58'-3" | 7 | A36 | 3"x2"x33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 57'-9¾" | 4 | 1.09" | 3" | CP | A36 | ¼x3 | 40'-0" |

| COLUMN END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Es | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7M 583 | 9 | A242 | 2"x1½"x25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| CORE END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EL END | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T7M 583 | 9 | A242 | 2"x1½"x25 | 1'-0" | 5'-3¼" | 10 | A242 | 1.14 | 4'-2⅞" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞ | A242 | 1.14 | 7⅞ | — | — | — | 4 | A242 | 1 | 1.14 | 2'- | - | — | — | — | — |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4 50 | 8-1-68 |
| 7-AB3 2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

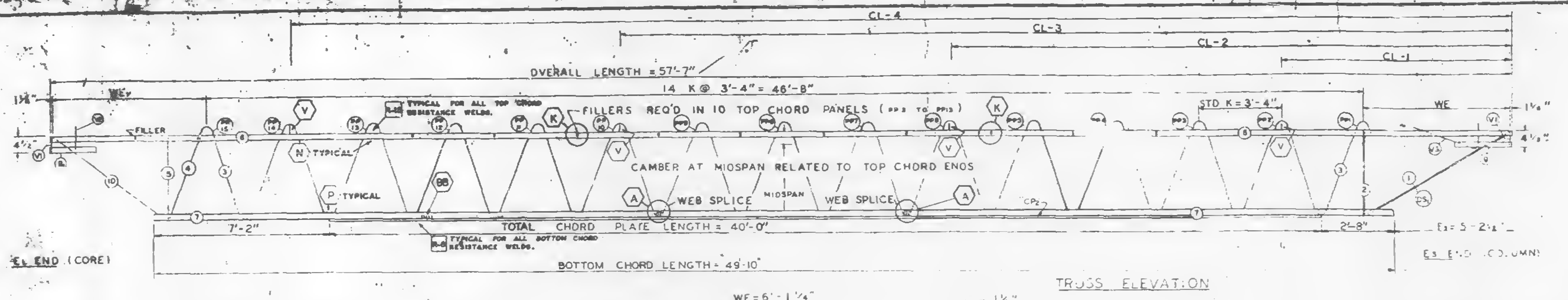
LACLEDE ELECTR COAT
REF NO 1000.

STEEL TRUSS DETAILS
FOR
[illegible]
FLOOR TRUSS C32T7M 58'-3" OVERALL
WORLD TRADE CENTER TOWER A-8

FABRICATED BY [illegible] COMPANY

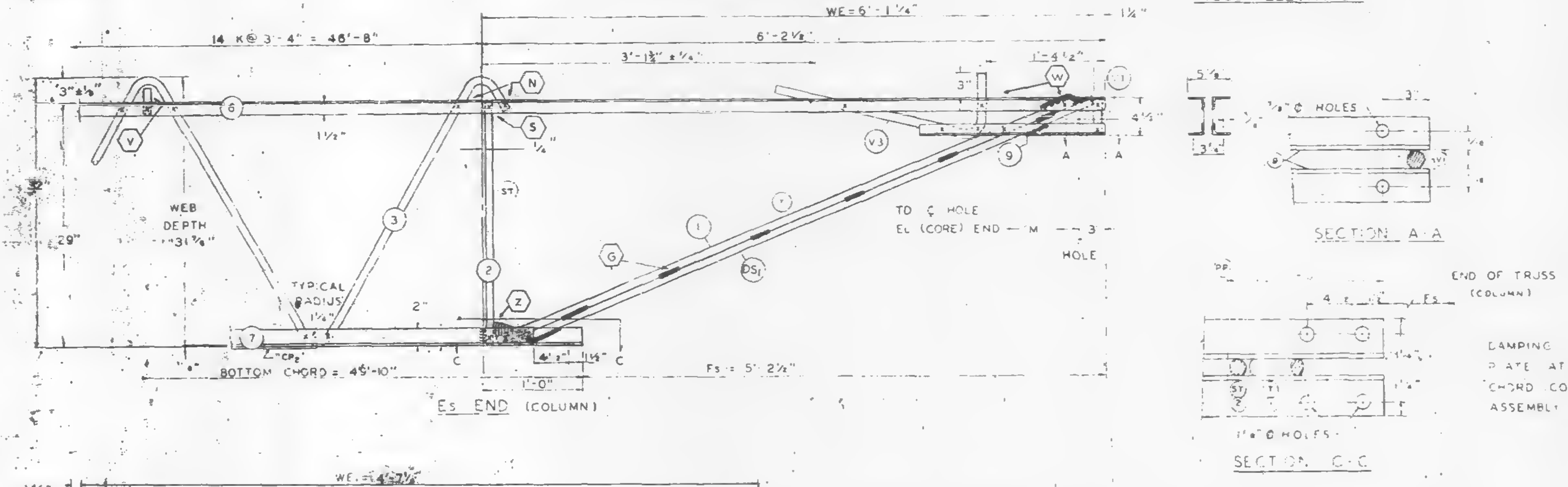
7-AB1-4 7-AB1-2
James White 4/25/69
APRIL 11, 1969
APRIL 11, 1969
221
ST207M

| FABRICATION REQUIREMENTS | DESIGN | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 2½" | ± [illegible] |
| DESIGN DEPTH | 29" | ± [illegible] |
| PANEL "K" | 3'-4" | ± [illegible] |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
WE
FILLER
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
P TYPICAL
WEB SPLICE
MIDSPAN
WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Es = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
El END (CORE)
Es END (COLUMN)

TRUSS ELEVATION



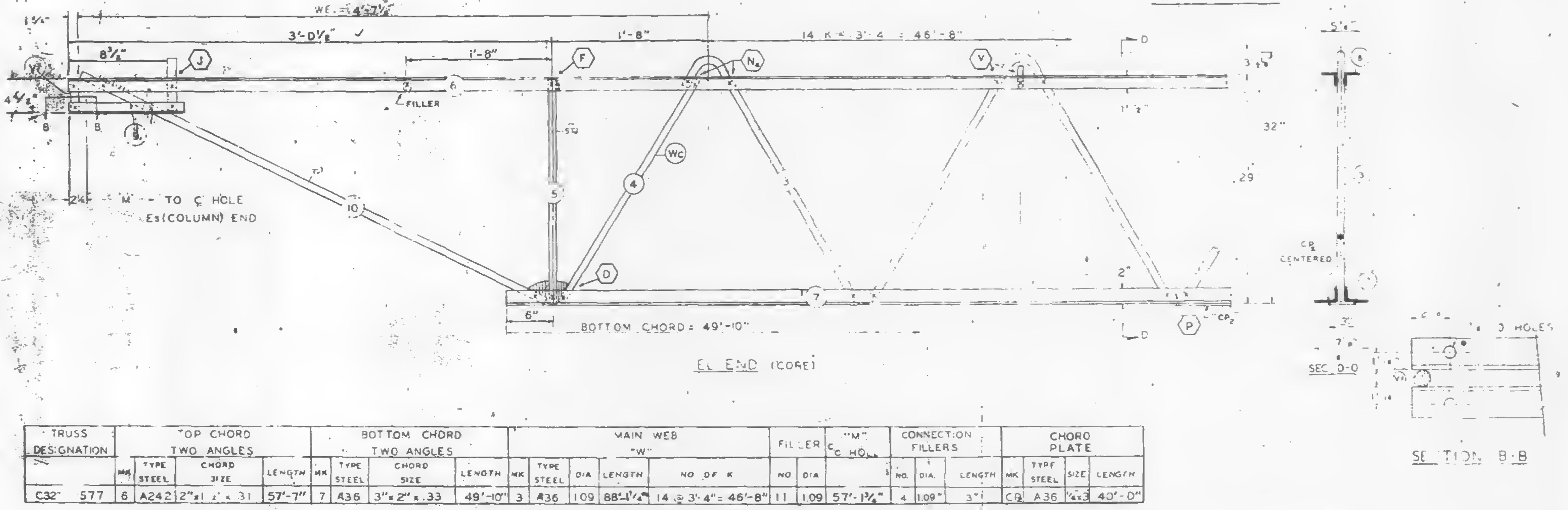
Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A.
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R-6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD COL END IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

TISHMAN
[illegible]
CONSTRUCTION DEPT.



El END (CORE)

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF DRWGS

| | |
|---|---|
| 7-AB1-4 | 7-22-68 |
| 7-AB1-52 | 2-15-[illegible] |
| 7-AB1-53 | 7-22-6[illegible] |
| 7-AB4-50 | [illegible]-1-68 |
| 7-AB3-2 | [illegible]-3-68 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000i

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C_C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32" 577 | 6 | A242 | 2"x1½"x.31 | 57'-7" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 57'-1¾" | 4 | 1.09" | 3" | CP2 | A36 | ¼x3 | 40'-0" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T7P 577 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS. TRUSS

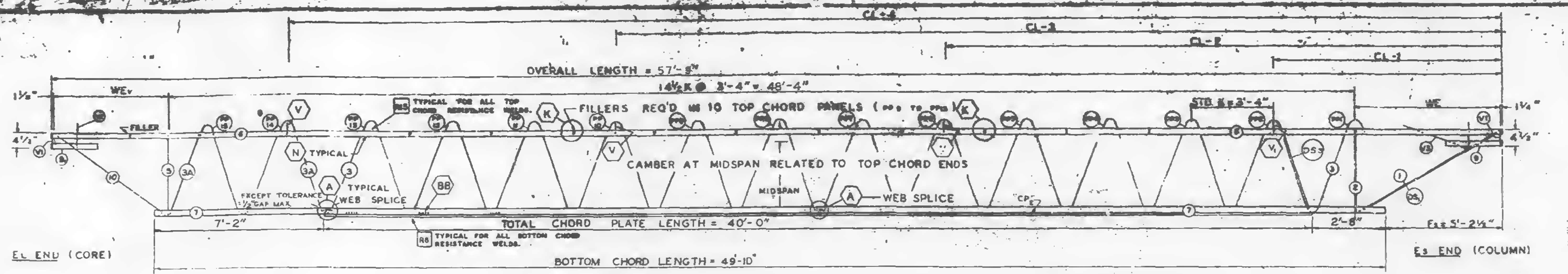
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6⅛" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T7P 577 | 9 | A242 | 2"x1½"x.25 | 10¼" | 4'-7½" | 10 | A242 | 1.14 | 3'-8½" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4" | A242 | 1.14 | 7⅞" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | - | — | — | — | — |

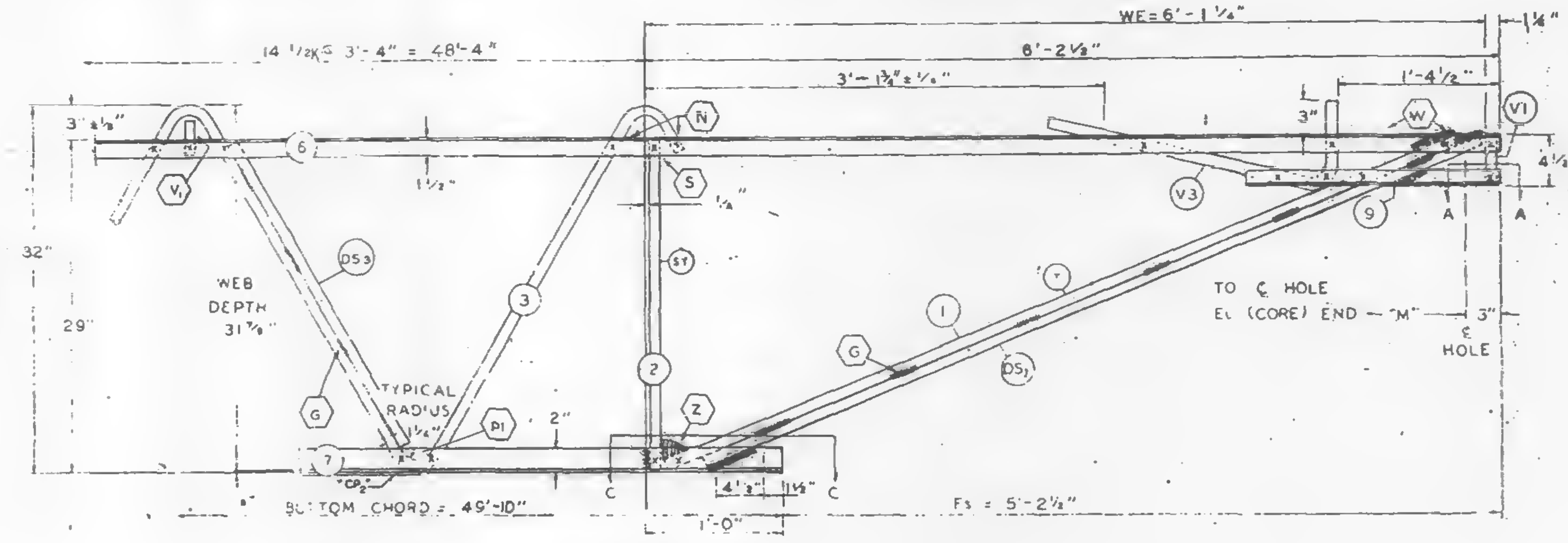
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T7P 57'-7" OVERALL
WORLD TRADE CENTER TOWER A-B

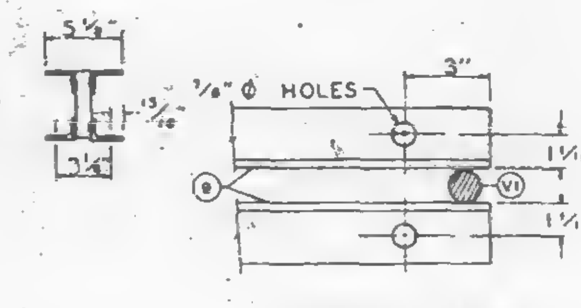
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-4 7-AB3-2. PLATE
APPROVED FOR FABRICATION FOR [illegible] James White DATE 4/25/69
DRAWN BY [illegible] DATE APRIL 15, 1969
APPROVED FOR FABRICATION FOR [illegible] DATE
CHECKED BY T.M. CHURA DATE APRIL 15, 1969
IN CHARGE OF PROD DEV.
LACLEDE STEEL CO.
DETAILED BY [illegible]
FABRICATION CONTRACT NO. WTC 221
SHEET NO ST207P


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14½ K @ 3'-4" = 48'-4"
1½"
WE₁
4½"
FILLER
V
R5 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
K
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP10)
STR K = 3'-4"
WE
1¼"
4½"
V1
N TYPICAL
A TYPICAL WEB SPLICE
EXCEPT TOLERANCE ½" GAP MAX.
BB
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
A WEB SPLICE
CP2
DS3
DS1
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-6"
Fs = 5'-2½"
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
EL END (CORE)
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)

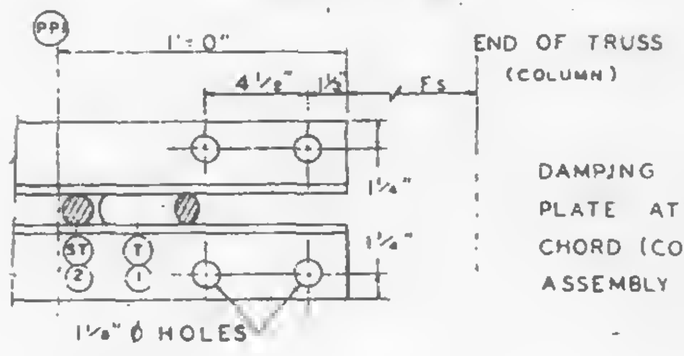
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



SECTION C-C

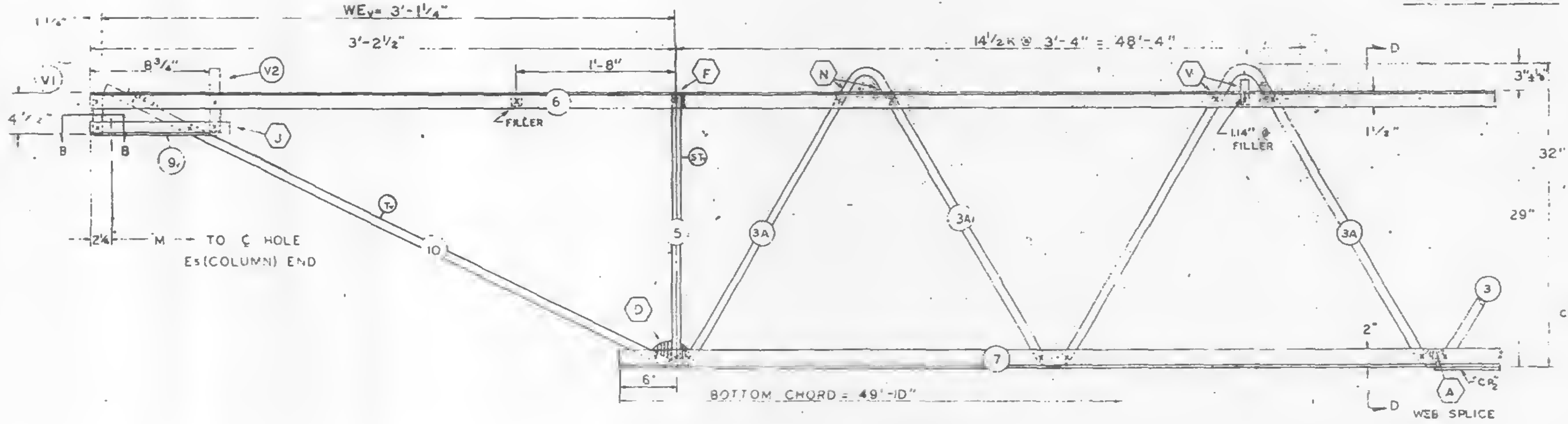
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

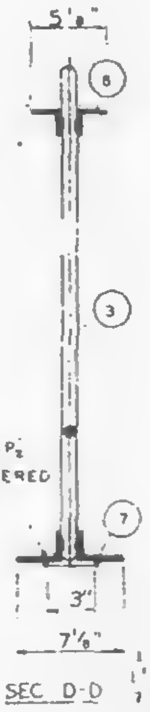
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY CONTRACT WTC 223.00.

VOID

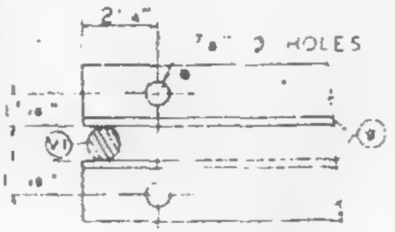
SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
☑ APPROVED
☐ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
6/4/69



EL END (CORE)



SEC D-D



SECTION B-B

| FABRICATION REQUIREMENTS | [illegible] | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | 32" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31 3/8" | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8N 579 | 6 | A242 | 2"×1½"×3[illegible] | 57'-9" | 7 | A36 | 3"×2"×33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>12'-5½" | 12½ @ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 57'-[illegible]¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼×3 | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8N 579 | 9 | A242 | 2"×1½"×25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅝" | A36 | 1.09 | 4½" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE₁ | DIAGONAL "T₁" STRUT | | | | VERTICAL "ST₁" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8N 579 | 9 | A242 | 2"×1½"×25 | 10" | 3'-1¼" | 10 | A242 | 1.14 | 3'-10" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4½" | A242 | 1.14 | 7½" | — | — | — | — | — | — | — | — | | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-8½" | 5'-2½" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-[illegible]0 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |

Truss length not req'd

PAINT
LACLEDE ELECTROCOAT
RED NO. 1000

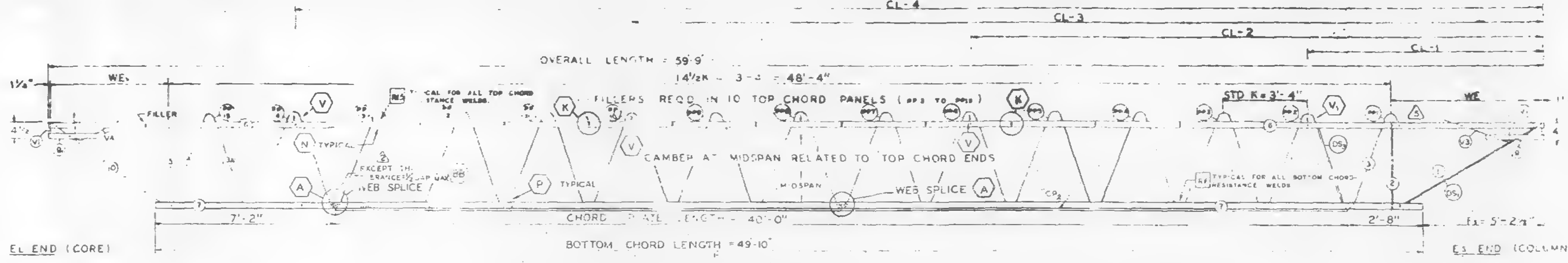
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8N 57'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

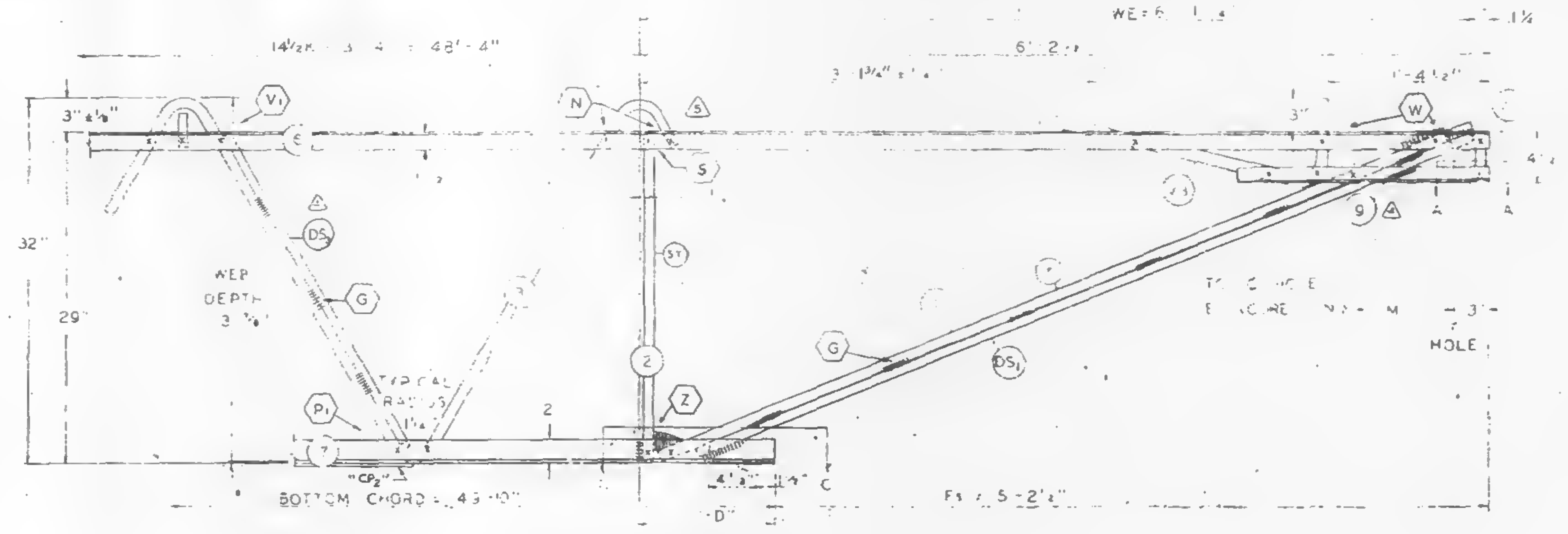
FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 PLATE | |
| APPROVED FOR FABRICATION BY FOR PONYA · DATE | DRAWN BY [illegible] DATE MAY 1, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR · DATE | CHECKED BY J R PAUL DATE MAY 1, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A C WEBER | FABRICATION CONT NO. WTC 221 | SHEET NO. [illegible] |

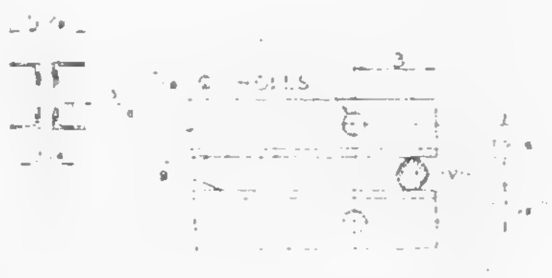
LACLEDE STEEL CO.


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
14½K = 3'-4" = 48'-4"
WE
FILLERS REQD IN 10 TOP CHORD PANELS
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLER
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
EXCEPT [illegible] WEB SPLICE
WEB SPLICE
TYPICAL
MIDSPAN
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
7'-2"
CHORD PLATE LENGTH = 40'-0"
2'-8"
Es = 5'-2½"
EL END (CORE)
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)

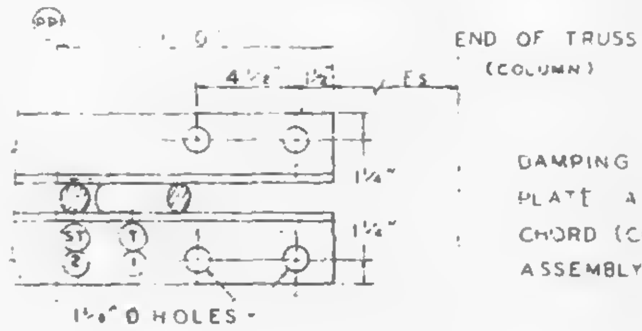
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



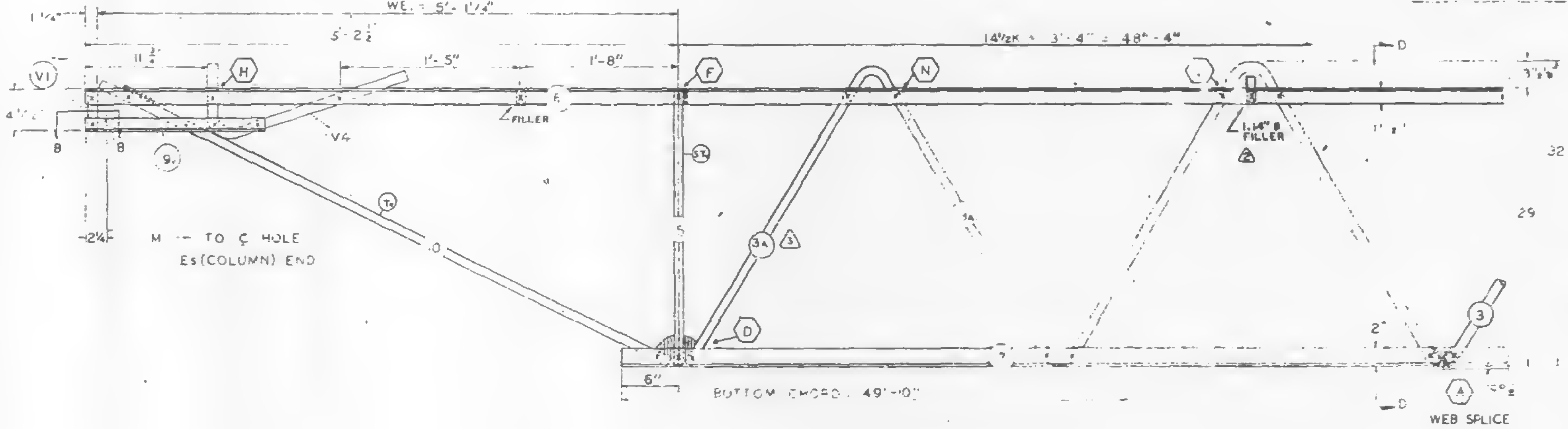
SECTION C-C

END OF TRUSS (COLUMN)

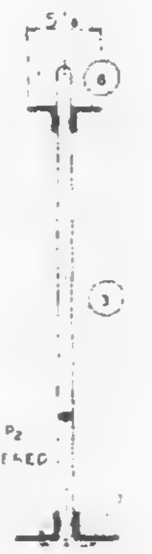
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.0D.

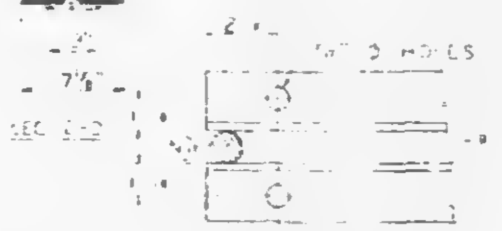
ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST[illegible], ST291, ST 292, AND ST280.
SEE SHEET ST293 [illegible] & [illegible] DETAILS.
CHORD PLATE [illegible] SHOWN ON SHEET ST280
LETTERS IN [illegible] INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

| FABRICATION REQUIREMENTS | DESIGN | TOL. [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | | ± 1/8" |
| PANEL [illegible] | 3'-4 | ± 1/4 |
| OVERALL LENGTH | 59'-9" | ± 3/8 |
| WEB DEPTH | 31 7/8" | 1/4" |



EL END (CORE)





SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △5 | 11-19-68 | AS NOTED | GDC |
| △4 | 7-22-68 | MK. ⑨ LENGTH & DS2 LENGTH | T.M.C. |
| △3 | 7-8-68 | TOLERANCE, WEB SPLICE; MAIN WEB | T.M.C. |
| △2 | 6-27-68 | AS NOTED | T.M.C. |
| △1 | 6-22-68 | GENERAL | T.M.C. |

△5 REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB1-52 | 7-1[illegible]-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-505 | 10-20-67 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLER | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH △5 | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH △4 |
| C32T8A-599 | 6 | A242 | 2"×2"×[illegible] | 59'-9" | 7 | A36 | 3×2×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>1'-5½" | 12½K @ 3'-4" = 41'-8"<br>2K @ 3'-4" = 6'-8" | 11 | 1.09 | 59'-3¾" | 3<br>1 | 1.09"<br>1.14 | 3"<br>3" | CP2 | A36 | 4×3 | 40'-0" | DS2 | A242 | .75 | 2'-6¾" |

△2

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH △2 | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH △5 | TYPE STEEL | DIA | LENGTH | TYPE STEEL | [illegible] | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8A-599 | 9 | A242 | 2"×1½"×.25 | 2'-3" | [illegible] | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | | 9½" | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB<br>LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE. | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH △5 | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T8A-598 | 9 | A242 | 2"×1½"×.25 | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6⅞" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅞" | – | – | – | A242 | 1.14 | 2'-2⅞" | – | – | – | – | – | – | – | – | – | – |

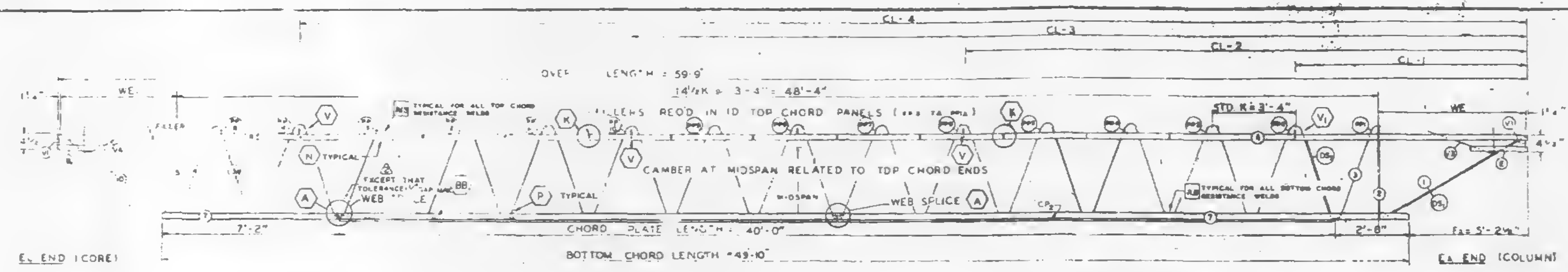
[illegible] TRUSS DETAILS

[illegible] YORK AUTHORITY

FLOOR TRUSS C32T8A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

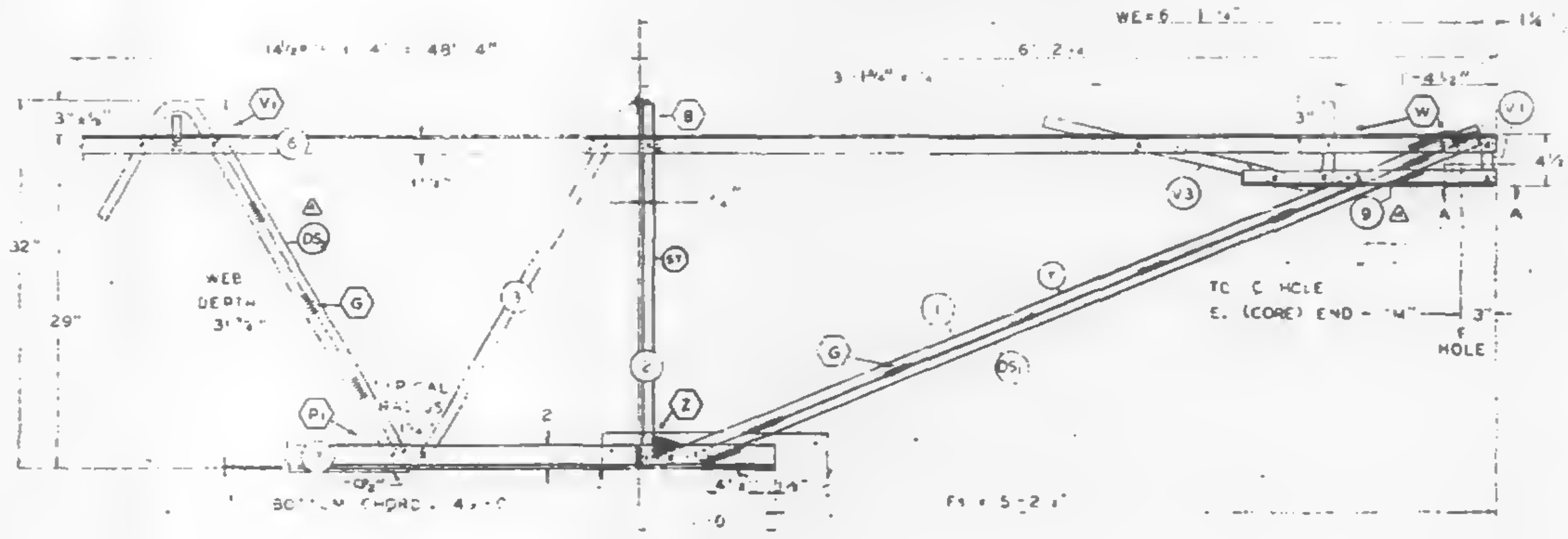
FABRICATED BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABR. DATES<br>AT MADISON, [illegible] | DESIGN DRAWING NO<br>7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION DATE<br>[illegible] 12/2/68 | DRAWN BY [illegible]<br>DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION DATE<br>BY [illegible] FABRICATOR | CHECKED BY J R PAUL<br>DATE FEB. 24, 1968 | IN CHARGE OF<br>PROD DEV |
| DETAILED BY A.C. WEBER | FABRICATION CONT NO<br>WTC 221 | SHEET NO<br>ST208A |

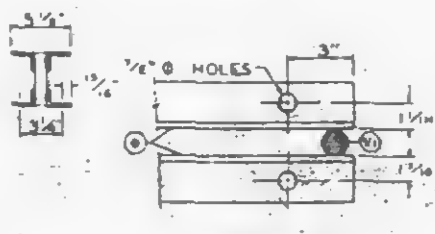

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
14½K = 3'-4" = 48'-4"
FILLERS REQD IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
WE
N TYPICAL
EXCEPT THAT TOLERANCE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
P TYPICAL
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CHORD PLATE LENGTH = 40'-0"
7'-2"
2'-8"
F3 = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
E END (CORE)
E END (COLUMN)

## TRUSS ELEVATION

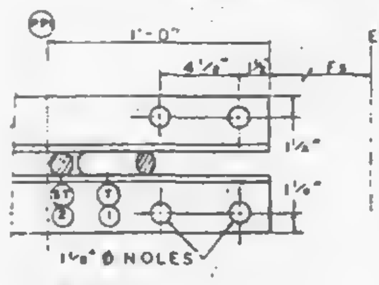
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



E END (COLUMN)



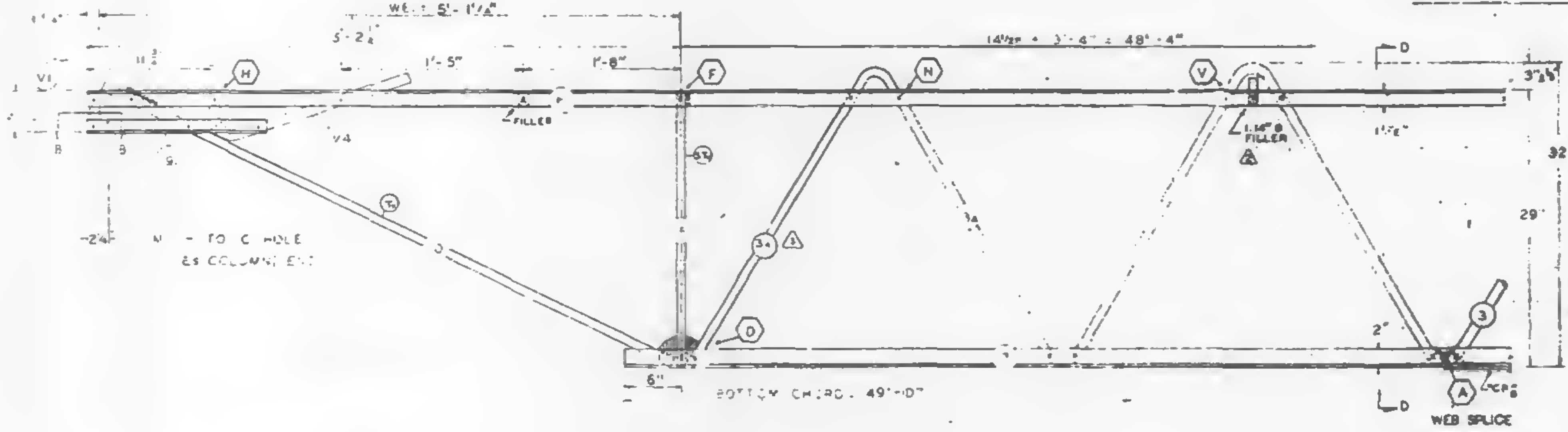
SECTION A-A



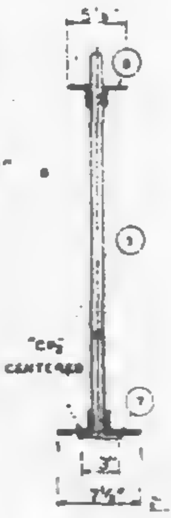
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (•)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

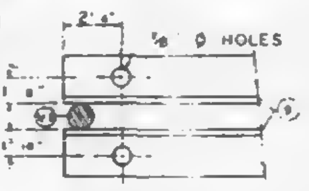
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



E END (CORE)



SEC. D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 7-22-68 | MK (9) LENGTH & DS, LENGTH | T.M.C. |
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE: MAIN WEB | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 1-3-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF W | FILLER NO | DIA | "M" ℄ HOLE | CONNECTION FILLER NO. | DIA. | WIDTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8A 599 | 6 | A242 | 2"×1½"×.3 | 59'-9" | 7 | A36 | 3"×2"×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible] | [illegible] | 11 | 1.09 | 59'-3½" | 3 | [illegible] | [illegible] | CR | A36 | ⅝×3 | 40'-0" | DS | A242 | .75 | 2'-6⅞" |

COLUMN END

| E END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8A-599 | 9 | A242 | 2"×1½"×.25 | 2'-3" | [illegible] | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | [illegible] | A36 | 1.09 | 2'-9⅛" | DS | A242 | .93 | 6'-3½" |

| [illegible] | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | F3 |
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

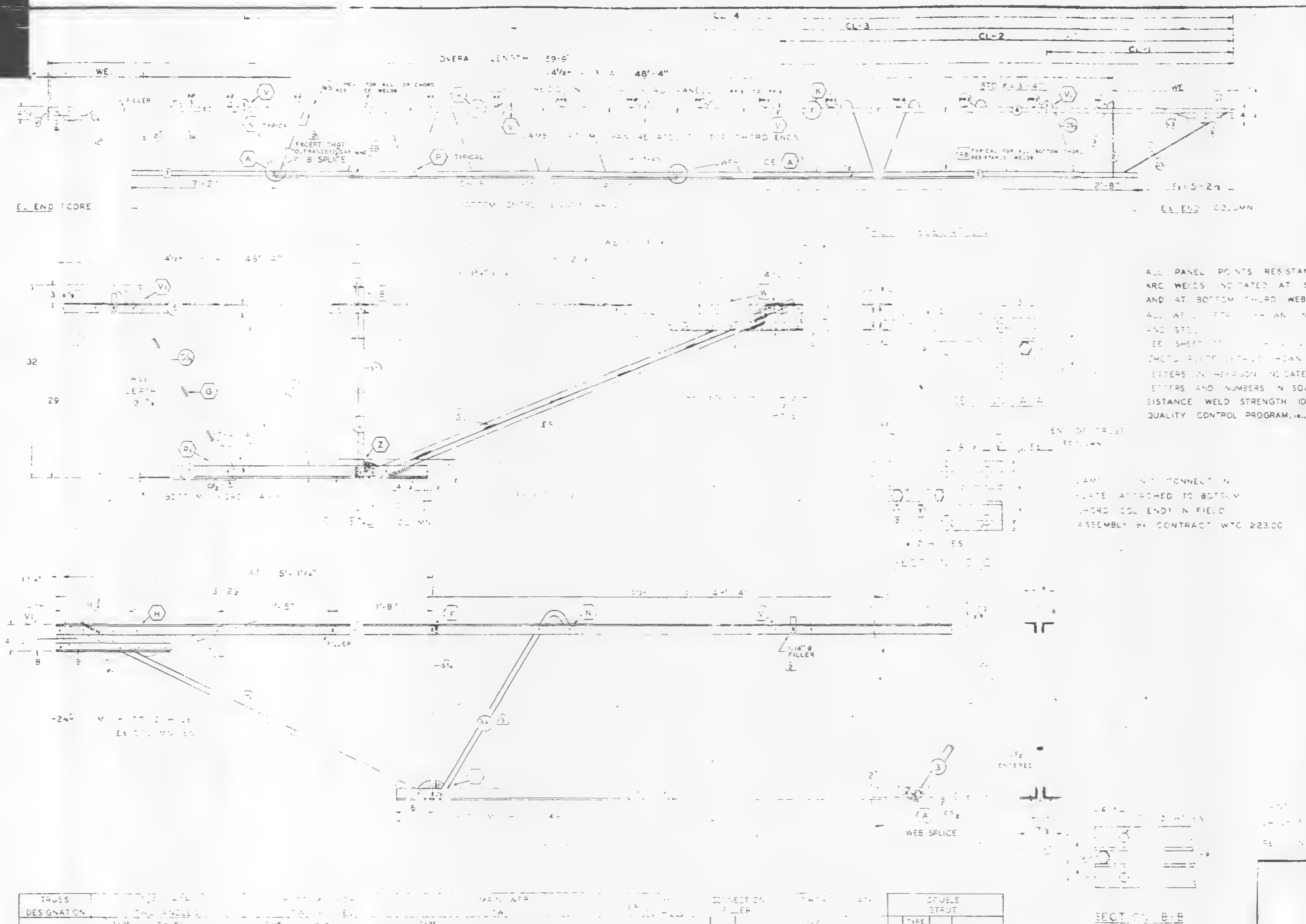
CORE END

| E END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE. | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "Wc" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "Wt" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8A-599 | 9 | A242 | 2"×1½"×.25 | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | [illegible] | — | — | — | A 242 | 1.14 | 2'-2" | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

| | | |
|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | |
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY CWB FOR PONYA DATE 8/2/68 | DRAWN BY LA DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY J.A. PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD DEV |
| DETAILS BY A.C. WEBER | FABRICATION CONT NO WTC 221 | SHEET NO ST208A |



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELDS ... SHEETS ST290, ST291, ST 292,
AND ST...
SEE SHEET ... DETAILS
CHORD PLATE DETAILS SHOWN ON SHEET ST280
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e., R6.

... CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | ± 3/8" |
| DESIGN DEPTH | | ± 1/4 |
| PANEL ... | 3'-4" | ± 1 |
| OVERALL LENGTH | 59'-9 | ± 8" |
| WEB DEPTH | 31 7/8 | ± 1/4 |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ③ | 7-6-68 | TOLERANCE, WEB SPLICE; MAIN WEB | T.M.C. |
| ② | 6-27-68 | AS NOTED | T.M.C. |
| ① | 6-22-68 | GENERAL | T.M.C. |

REF. DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-5-68 |
| 7-AB1-52 | 2-5-68 |
| 7-AB1-53 | 3-58 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB1-2 | 3-68 |
| 7-AB4-50.5 | 10-20-67 |

| TRUSS DESIGNATION | | | | | | | | | MAIN WEB | | | | | | | CONNECTION FILLER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | | | | NO | DIA | LENGTH | | | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8A-599 | 6 | A242 | [illegible] | 59'-9 | 7 | A36 | [illegible] | 49'-2" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10⅞"<br>[illegible] | 12½ 2K 3 3'-4"= 4'-8"<br>2K 3 3'-4"= [illegible] | | | 3<br>1 | 1.09"<br>1.14 | 3"<br>3" | CP2 | | 3 4'-[illegible] | DS | A242 | .75 | 2'-8½" |

**COLUMN END**

| TRUSS DESIGNATION | Es END | BEARING ANGLES | | | | WE | DIAGONAL ST. STRUT | | | | VERTICAL ST. STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8A-599 | | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6"-[illegible] | | A36 | .109 | 6'-3⅛" | 2 | A36 | .109 | 2'-7⅞ | A36 | .09 | 4⅜" | A36 | .109 | 2' 9"[illegible] | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**CORE END**

| TRUSS DESIGNATION | EL END | BEARING ANGLES | | | | WE. | DIAGONAL ST. STRUT | | | | VERTICAL ST. STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T8A-599 | | 9 | A242 | 2"x1½"x.25 | 1'-7" | 5'-1½ | 3 | A242 | .4 | 5'-6½ | 5 | A242 | [illegible] | 2'-4¾" | A242 | [illegible] | 4½ | – | – | – | A242 | .14 | 2'-2½ | – | – | – | – | – | – | – | – | – | – |

STEEL TRUSS DETAILS

FLOOR TRUSS C32T8A 59'-9" OVERALL

WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT ...

DESIGN DRAWING NO 7-AB1-5 7-AB1-2 PLATE

APPROVED FOR FABRICATION BY Jw FOR ... DATE 7/12/68

DRAWN BY ... DATE FEB 24, 1968

APPROVED FOR FABRICATION BY ... FABRICATOR DATE

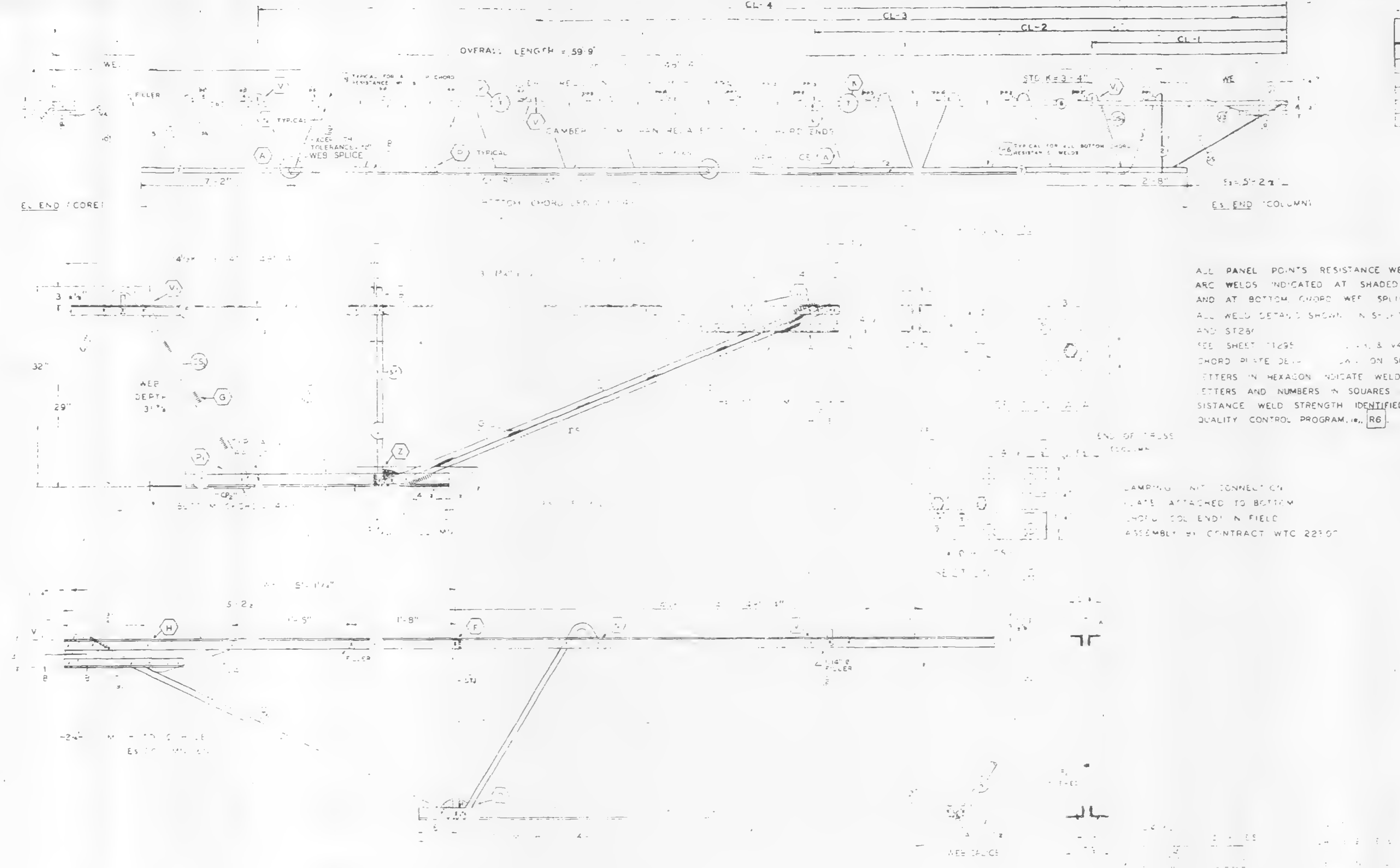
CHECKED BY J.R. PAUL DATE FEB. 24, 1968

IN CHARGE OF PROD. DEV.

CHANGED BY ... WEBER

FABRICATION CONT. NO W.T.C. 221

SHEET NO ST208A



ALL PANEL POINTS RESISTANCE WELDED x
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN IN SHEETS ST290, ST291, ST 292,
AND ST28[illegible]
SEE SHEET [illegible]295 [illegible] & V4 DETAILS.
CHORD PLATE DET[illegible] ON SHEET ST280
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

CLAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 22[illegible]

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 1/8" |
| DESIGN DEPTH | 29 | ± 1/4" |
| PANEL "K" | 4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 1/ |
| WEB DEPTH | 31 7/8" | ± 1/[illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF. DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-5-68 |
| 7-AB1-52 | 2-5-68 |
| 7-AB1-53 | [illegible]-3-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB1-2 | [illegible]-5-68 |
| 7-AB4-50 2 | 10-20-67 |

COLUMN END

| ES END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE. | DIAGONAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | | STRUT TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8A-599 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-[illegible] | | A3[illegible] | .09 | 6'-3⅝" | 2 | A36 | .109 | 2'-7⅞" | A36 | .091 | 4⅜" | A36 | .09 | [illegible]-9½ | .05 | .42 | .32 | 6'-3'[illegible] |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | FS |
|---|---|---|---|---|
| 9'-6¼" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE. | DIAGONAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8A-599 | 9 | A242 | 2"x1½"x.25 | 1'-7" | 5'-1½ | [illegible] | A242 | .14 | 5'-6½ | 5 | A242 | .14 | 2'-4¾" | A242 | .14 | .4 | — | — | | A242 | .14 | 2'-2½ | - | — | — | — | — | | — | — | — | — |

STEEL TRUSS DETAILS

[illegible] TRUSS [illegible] 59'-9" OVERALL

WORLD TRADE CENTER TOWER A-B

FABRICATED BY LACLEDE STEEL COMPANY

FABR. DATES
AT MADISON, ILLINOIS

DESIGN DRAWING NO.
7-AB1-5, 7-AB1-2 PLATE

APPROVED FOR FABRICATION BY Jw FOR PONYA DATE 7/5/68

DRAWN BY [illegible] DATE FEB. 24, 1968

APPROVED FOR FABRICATION BY FOR FABRICATOR DATE

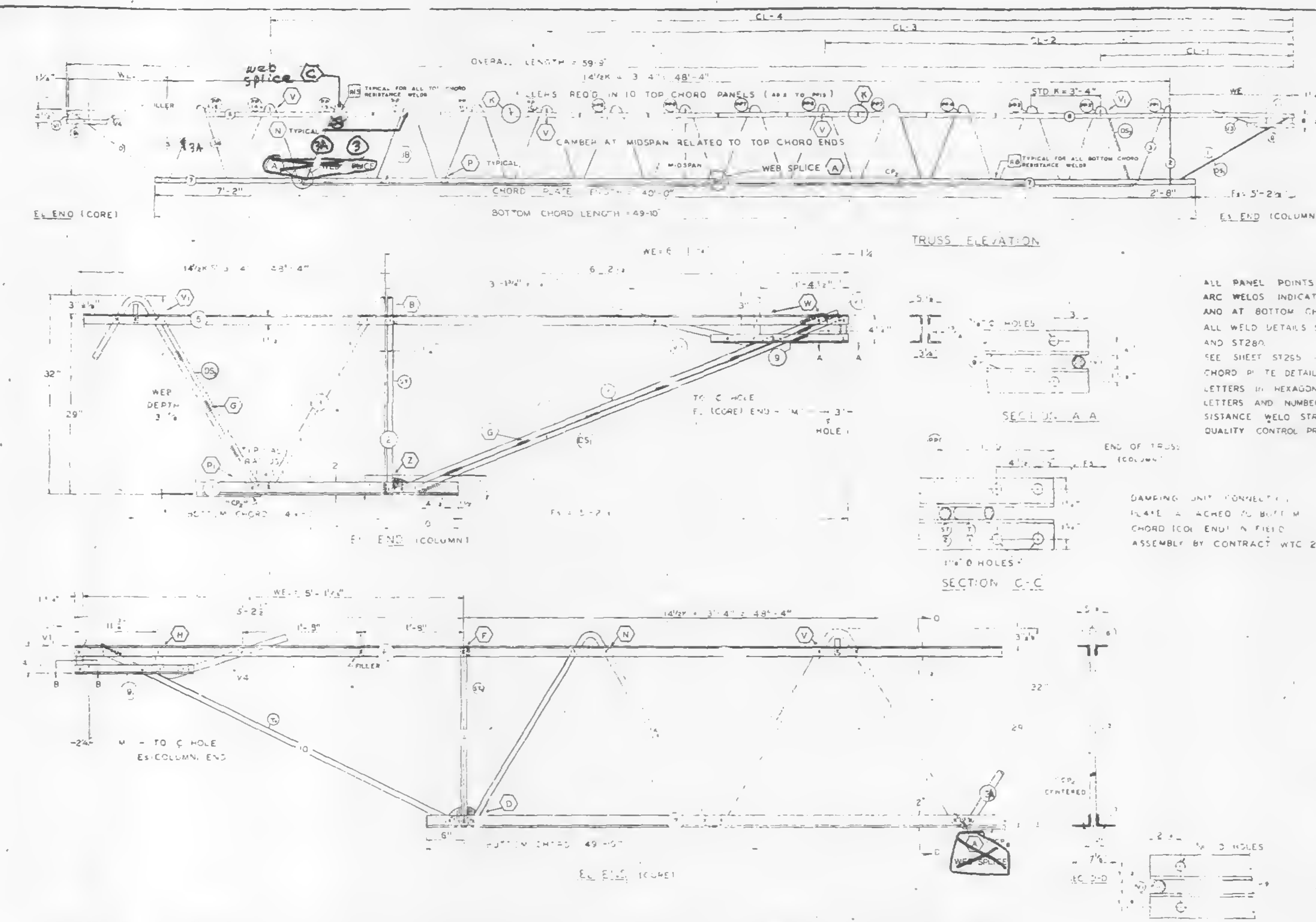
CHECKED BY J.R. PAUL DATE FEB. 24, 1968

IN CHARGE OF PROD. DEV.

DETAILED BY E.C. WEBER

FABRICATION CONT. NO. WTC 221

SHEET NO. ST208A



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST 292, AND ST280.
SEE SHEET ST255 [illegible] & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4 |
| OVERALL LENGTH | 59·9" | ± 3/8" |
| WEB DEPTH | [illegible] 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 8-22-68 | GENERAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-A81-5 | 4-15-68 |
| 7-A81-52 | 2-15-68 |
| 7-A81-53 | 1-3-66 |
| 7-A84-50 & 50.2 | 10-20-67 |
| 7-A83-2 | 1-3-68 |
| 7-A84-50.5 | 10-20-67 |

× 6/25/68 WaB

LACLEDE ELECTROCHEM...
REG. NO. 10070

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-8

FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. T-A81-5 7-A83-2 PLATE 1
APPROVED FOR FABRICATION FOR PONYA BY — DATE
DRAWN BY LA DATE FEB 24, 1968
APPROVED FOR FABRICATION FOR FABRICATOR BY — DATE
CHECKED BY J.P. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. ST208A

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLER | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF W | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8A-599 | 6 | A242 | 2 [illegible] 3 | 59·9 | 7 | A36 | 3"x2"x3? | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10"<br>[illegible]-5½ | 12½K @ 3'-4" = 41'-8"<br>2K @ 3'-4" = 6'-8" | 11 | 1.09 | 59-3½ | 3 | 1.09 | 3" | CP2 | A36 | ¼x3 | 40'-0" | 5S | A242 | .75 | 2'-8½" |

1 1.14 3"

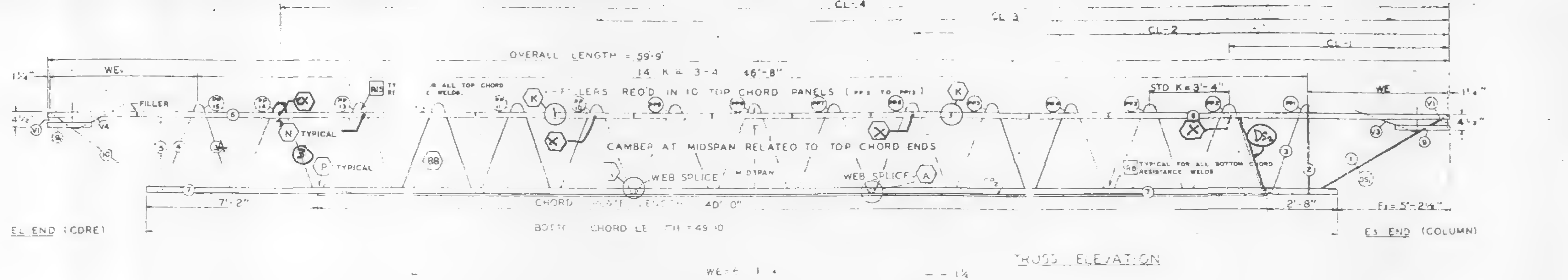
**COLUMN END**

| E1 END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8A-599 | 9 | A242 | 2"x1"x".25 | 2'-0" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅛" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9¼" | 05 | A242 | .92 | 6'-3⅛" |

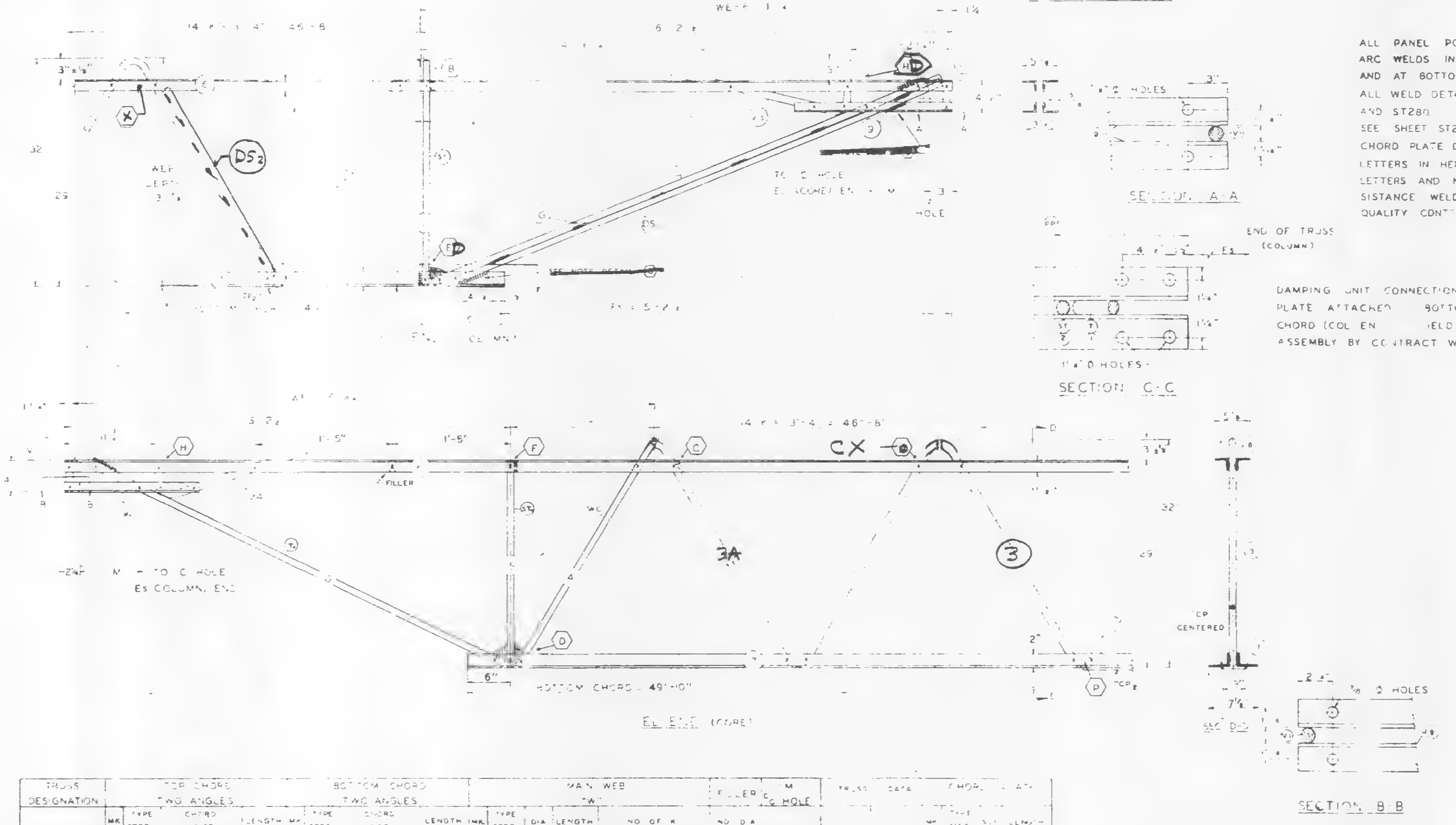
| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**CORE END**

| E1 END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8A-599 | 9 | A242 | 2"x1½"x.25 | 1'-7' | 5'-1½ | 10 | A242 | 1.14 | 5'-6⅛ | 5 | A242 | 1.14 | 2'-4⅜" | A242 | 1.14 | 4 ⅞ | — | — | — | A242 | 1.14 | 2'-2⅛ | — | — | — | — | — | — | — | — | — | — |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59-9'
14 K @ 3'-4 = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
WE
FILLER
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
7'-2"
CHORD PLATE LENGTH 40'-0"
BOTTOM CHORD LENGTH = 49'-0
2'-8"
Es = 5'-2¼"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION



SECTION A-A

SECTION C-C

SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 1/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED x
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST29D, ST291, AND ST28D.
SEE SHEET ST295 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST28D.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION PLATE ATTACHED BOTTOM CHORD (COLUMN END) FIELD ASSEMBLY BY CONTRACT WTC 223.00.

6/13/68 CRB

4-15-68

| REF DRWGS | | |
|---|---|---|
| | 7-AB1-5 | 2-15-58 |
| | 7-AB1-52 | 2-15-65 |
| | 7-AB1-53 | 1-3-58 |
| | 7-AB4-50 & 50 2 | 10-20-67 |
| | 7-AB3-2 | 1-3-68 |
| | 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER @ HOLE | | | TRUSS DATA | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8A-S99 | 6 | A242 | 2" x [illegible] | 59-9 | 7 | A36 | 3" x 2 x 3½ | 49'-10" | 3 | A36 | 1.09 | 87'-2" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 59 3¾ | | CP2 | A36 | 4 x [illegible] | 4 [illegible] |

| COLUMN END | Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8A-S99 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-[illegible]" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅛" | A36 | 1.09 | 4⅛" | A36 | 1.19 | 2'-9⅛" | DS | A242 | .75 | 6'-3" |
| | | | | | | | | | | | | | | | | | | | | | DS | A242 | .75 | |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

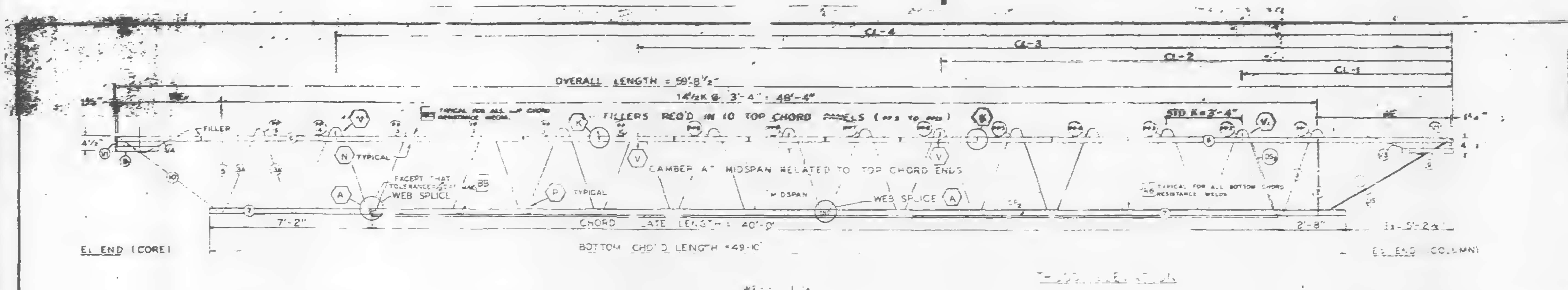
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
|---|---|---|---|---|
| 9'-6⅛" | 22'-10⅛" | 36'-2⅛" | 49'-6⅛" | 5'-2¼" |

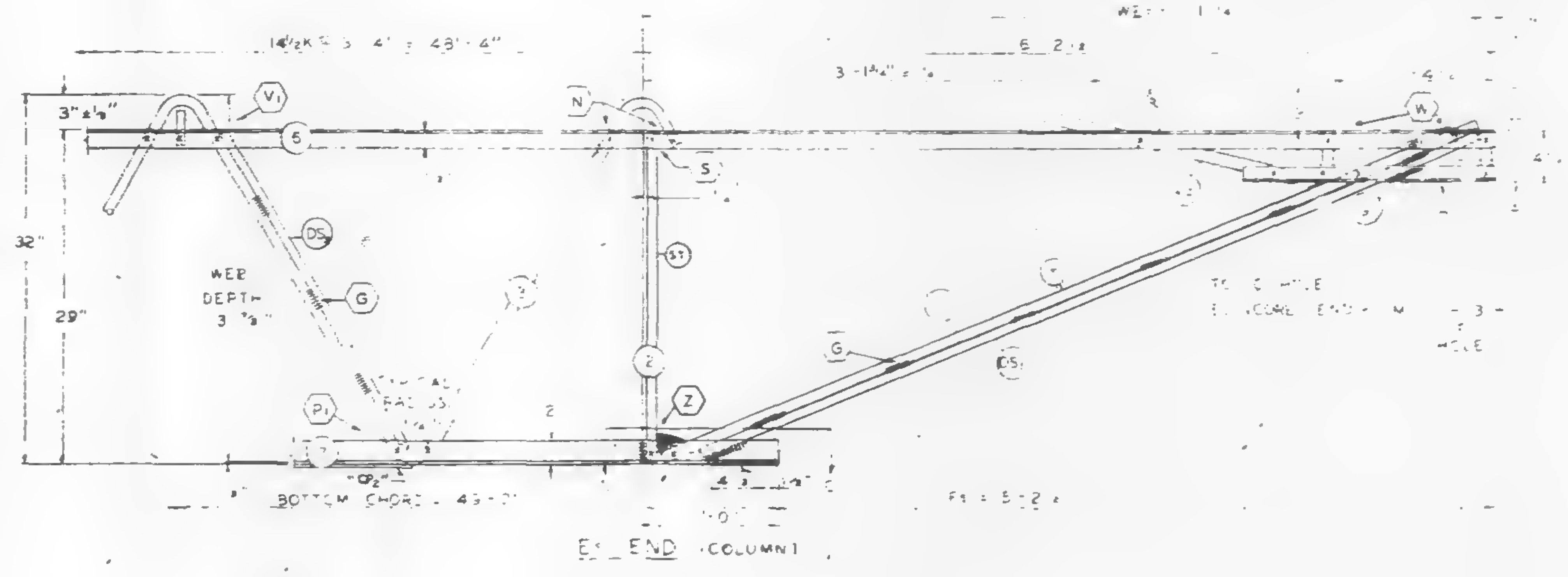
| CORE END | EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | MK | | | MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | | WEB | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | | | DIA |
| | C32T8A-S98 | 9 | A242 | 2"x1½"x.25 | 1'-7" | 5'-9¼" | 10 | A242 | 1.14 | 5'-6⅛" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4 | | | | A242 | 1.14 | 2'-[illegible]" | 4 | A242 | 1 | 1.14 | 3'-0⅛" | | — | — | — | — | 3A | A242 | | 1.14 |

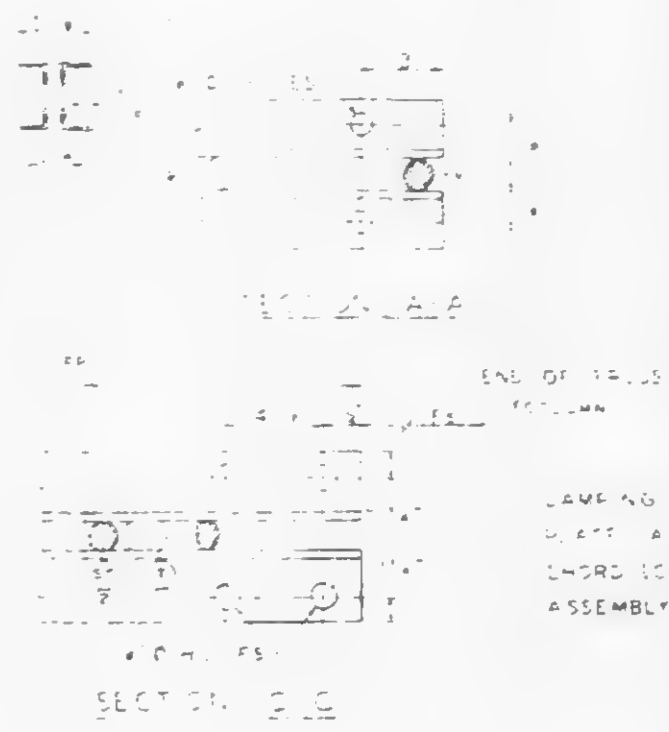
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8A 59'-9" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-5 7-AB3-2
APPROVED FOR FABRICATION BY FOR PONYA DATE
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DRAWN BY
DATE FEB 24, 1968
CHECKED BY J R PAUL
DATE FEB. 24, 1968
IN CHARGE OF
DETAILED BY A C WEBER
FABRICATION CONTRACT WTC 221
ST208A

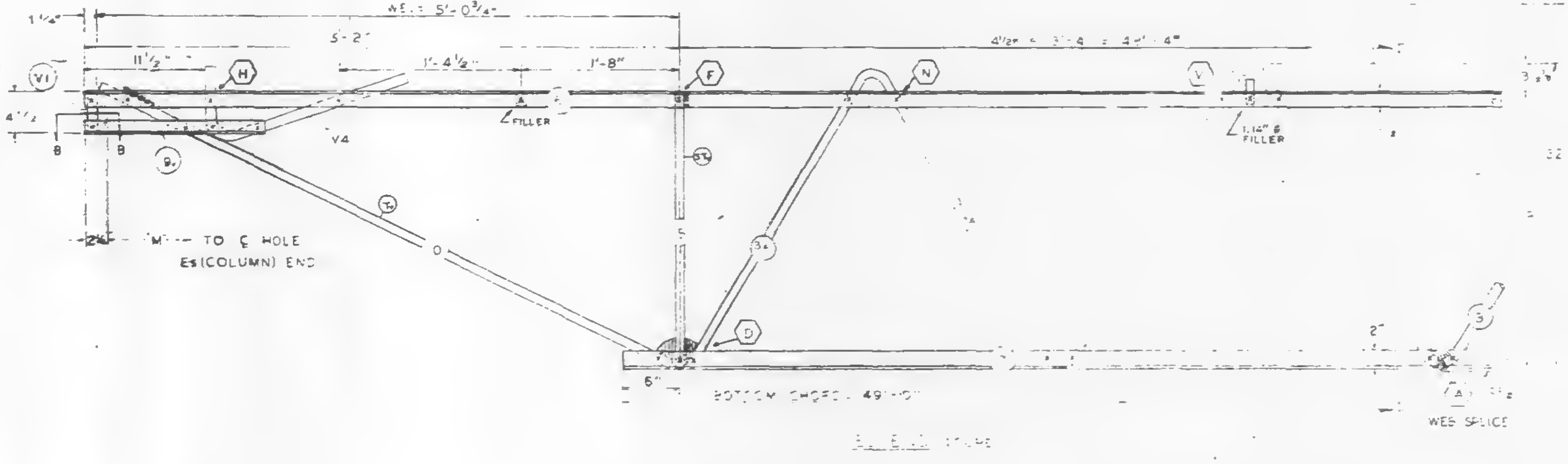

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8½"
14½K @ 3'-4" = 48'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
FILLER
N TYPICAL
EXCEPT THAT TOLERANCE
WEB SPLICE
BB
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE A
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
7'-2"
CHORD PLATE LENGTH = 40'-0"
2'-8"
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
EL END (COLUMN)





ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST28[illegible]
SEE SHEET ST291 FOR V1, V3, & V4 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., [R6].

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00



| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| REF DRWGS | |
|---|---|
| 7-A81-5 | 10-15-[illegible] |
| 7-A81-52 | 2-15-[illegible] |
| 7-A81-53 | 7-22-[illegible] |
| 7-A84-50 | [illegible]-1-[illegible] |
| 7-A83-2 | 1-3-[illegible] |
| 7-A84-503 | 10-20-67 |

| FABRICATION [illegible] | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | | ± 1/4 |
| OVERALL LENGTH | 59'-8½" | ± 3/8 |
| WEB DEPTH | 31 7/8" | ± /4" |

LACLEDE ELECTRODE
REF NO [illegible]

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | C/L TO C/L HOLE | CONNECTION FILLER | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8B-598.5 | 6 | A242 | 2"x[illegible] | 59'-8½" | 7 | A36 | 3 x 2 x .3 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>[illegible]-5½" | 12½K @ 3'-4" = 41'-8"<br>2K @ 3'-4" = 6'-8" | 11 | 1.09 | 59'-3[illegible] | 3<br>1 | 1.09"<br>1.14 | 3"<br>3" | CP2 | A36 | [illegible]x3 | 40'-0" | DS2 | A242 | .75 | 2'-6¾" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8B-598.5 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3[illegible]" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | | 2'-9[illegible]" | DS1 | A242 | .92 | 6'-3[illegible]" |

| CHECK DIMENSION FOR TRUSS FAB<br>LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | FB |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**CORE END**

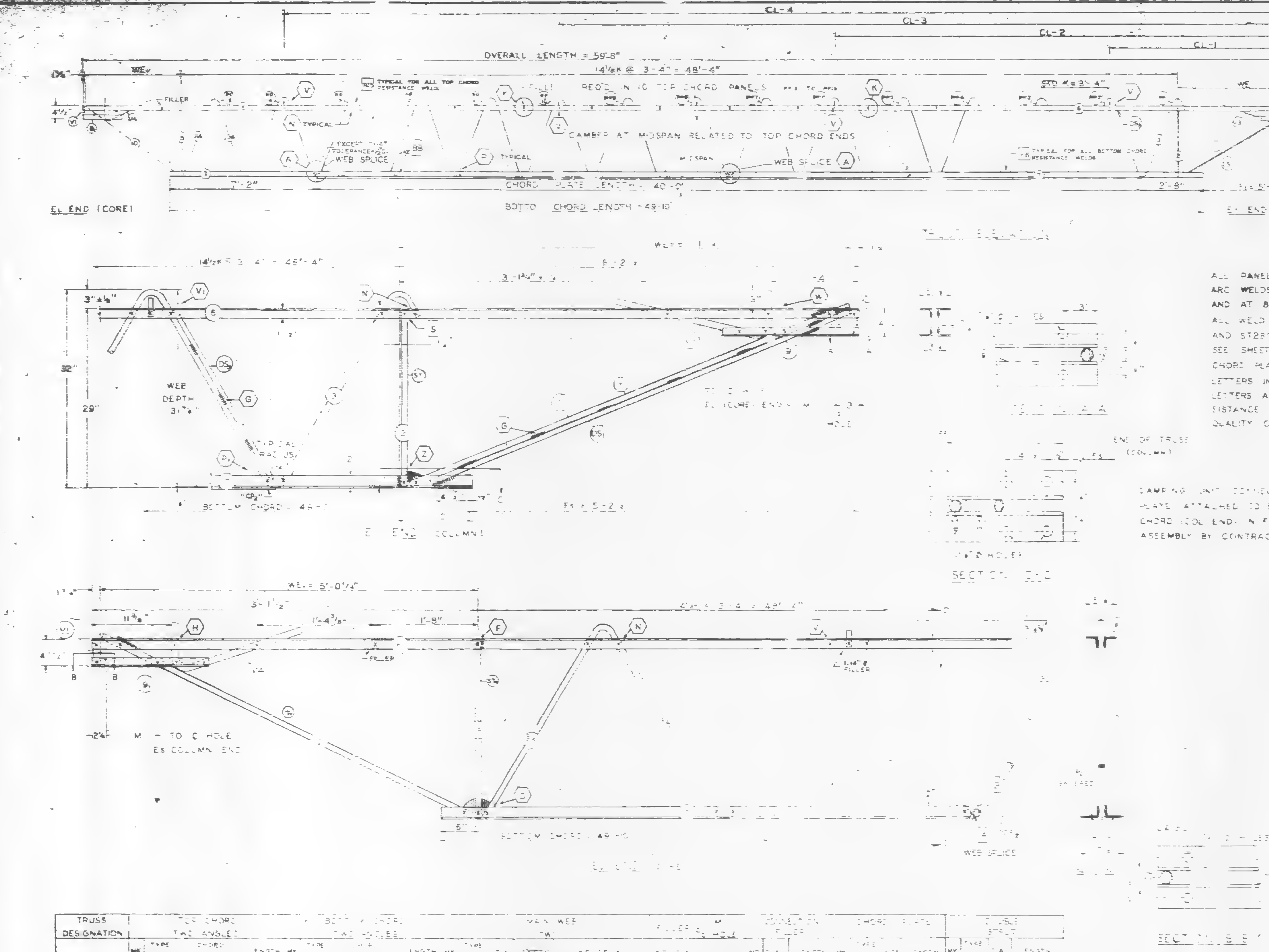
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEL | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8B-598.5 | 9 | A242 | 2"x1½"x.25 | 1'-6" | 5'-0¾" | 10 | A242 | 1.14 | 5'-6⅞" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | — | — | — | A242 | 1.14 | 2'-2½" | — | — | — | — | — | - | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8B 59'-8½" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-5 7-[illegible] | DATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. | DATE 2/28/69 | DRAWN BY [illegible] DATE FEB. 10, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M. CHUBA DATE FEB. 11, 1969 | IN CHARGE OF PROD. [illegible] |
| DETAILED BY [illegible] | | FABRICATION CONT NO. WTC 221 | SHEET ST208B |



ALL PANEL POINTS RESISTANCE WELDED ✕
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST28[illegible]
SEE SHEET ST295 FOR [illegible] V3, & V4 DETAILS.
CHORD PLATE [illegible] SHOWN ON SHEET ST280.
LETTERS IN [illegible] INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 2[illegible]

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | [illegible] | [illegible] |
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | | ± 1/8" |
| PANEL [illegible] | 3'-4 | ± 1/4 |
| OVERALL LENGTH | 59'-8" | [illegible] |
| WEB DEPTH | 31 7/8" | 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF DPWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB-52 | 2-15-68 |
| 7-AB-53 | 7-22-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB7-2 | [illegible]-3-68 |
| 7-AB4-50.5 | 10-20-67 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB TW | | | | | FILLER [illegible] HOLE | | | CONNECTION FILLER | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF [illegible] | NO | DIA | [illegible] | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8C-598 | 6 | A242 | 2"x[illegible] | 59'-8" | 7 | A36 | 3"x[illegible] x 3" | 49'-10" | 3 / 3A | A36 / A242 | 1.09 / 1.4 | 78'-3¾" / [illegible] | 12½K @ 3'-4" = 4'-5" / 1K @ 3'-4" = [illegible] | 11 | 1.09 | 59'-2¾" | 3 / 1 | 1.09" / 1.14 | 3" / 3" | CP2 | [illegible] | 4x⅜ | 40'-0" | DS3 | A242 | .75 | [illegible] |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL ST STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER MK V1 | | | | MK V3 | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | [illegible] | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T8C-598 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 5'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅛" | A36 | [illegible] | DS | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

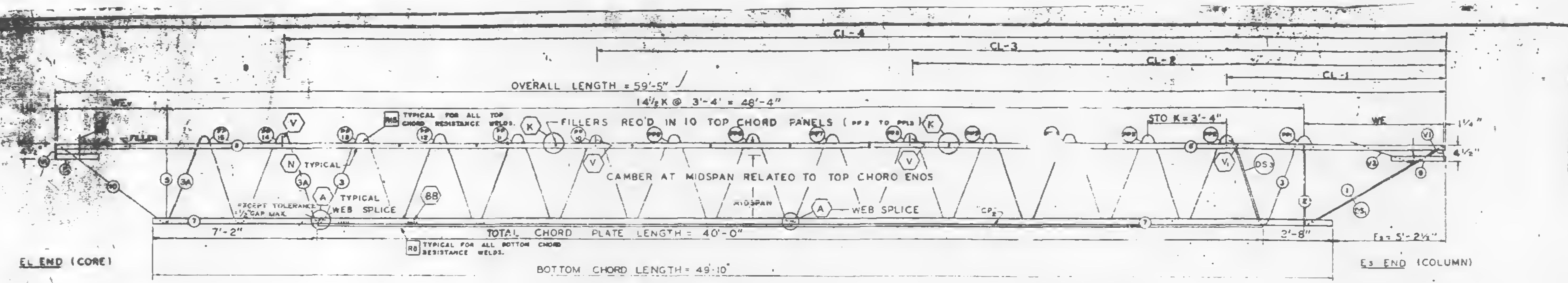
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
|---|---|---|---|---|
| 9'-6⅜" | 22'-10⅝" | 35'-2⅝" | 49'-6⅝" | 5'-2⅞" |

| CORE END | ℄ END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL ST STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER MK V1 | | | MK V2 | | | MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T8C-598 | 9 | A242 | 2"x1½"x.25 | 1'-6" | 5'-0¼" | 10 | A242 | .4 | 5'-5⅛" | 5 | A242 | .4 | 2'-4⅞" | A242 | .14 | 4⅛" | — | — | — | A242 | .14 | 2'-2⅛" | — | — | — | — | — | — | — | — | — | — |

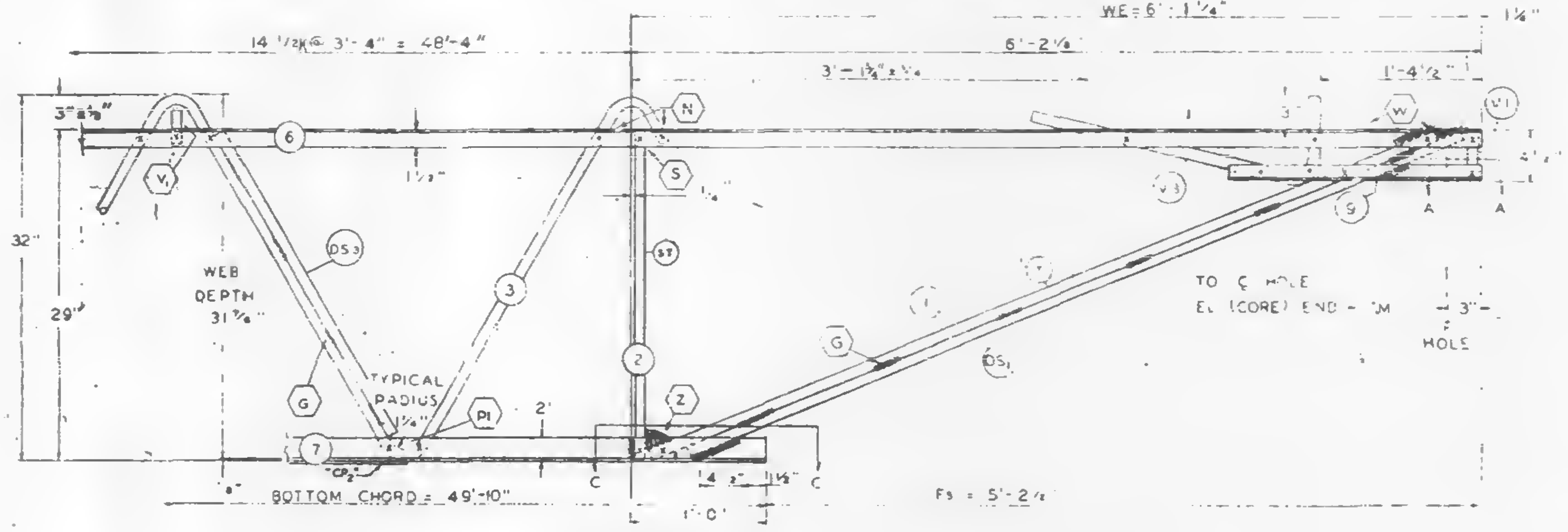
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8C 59'-8" OVERALL
WORLD TRADE CENTER TOWER A-B

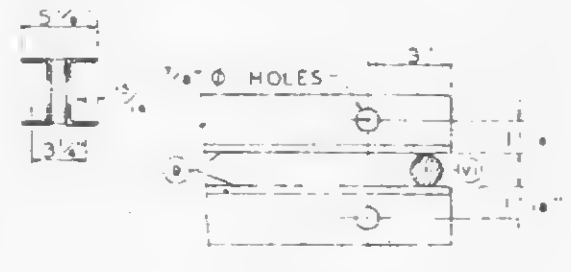
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON ILLINOIS
DESIGN DRAWING NO 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY [illegible] FOR PONYA DATE 2/28/69
DRAWN BY [illegible] DATE FEB 10 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M.CHURA DATE FEB. 11, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY [illegible]
FABRICATION CONT NO WTC 221
SHEET NO ST208C


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-5"
14½ K @ 3'-4" = 48'-4"
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
WEB SPLICE
MIDSPAN
TOTAL CHORD PLATE LENGTH = 40'-0"
7'-2"
3'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 49'-10"
1¼"
4½"

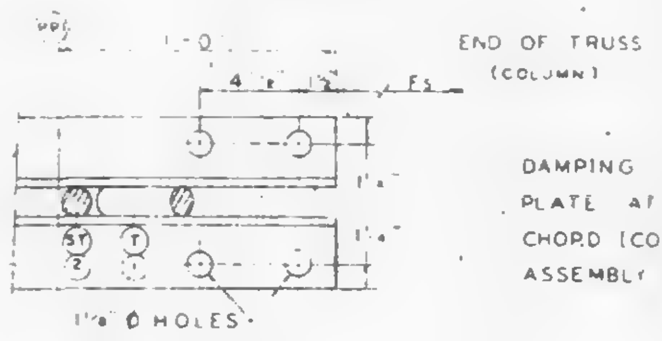
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



SECTION C-C

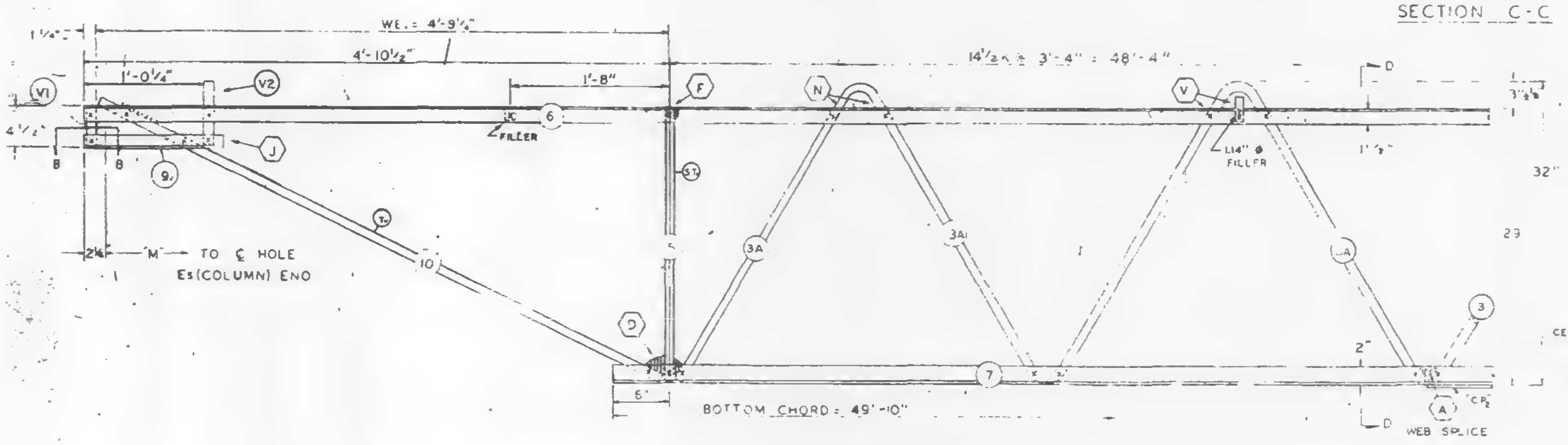
ALL PANEL POINTS RESISTANCE WELDED EX. ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬.

ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

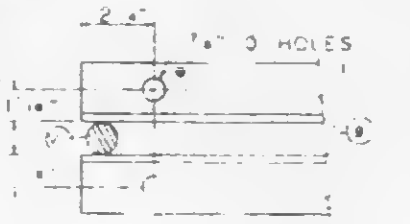
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 5/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-5" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



EL END (CORE)

SEC D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4 3 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50 3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8D 595 | 6 | A242 | 2"x1½"x.31 | 59'-5" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>12'-5½" | 12½@ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-11¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP1 | A36 | ¼x3 | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8D 595 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TF 5S FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

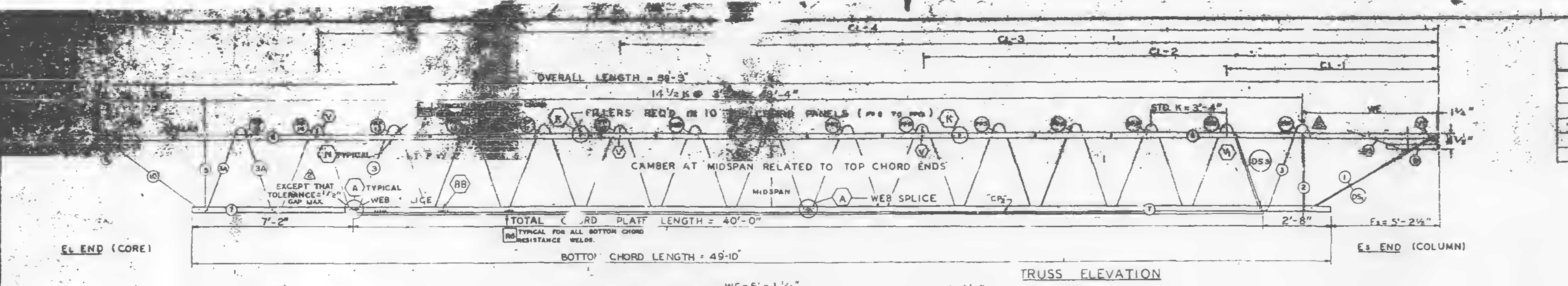
**CORE END**

| El END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE1 | DIAGONAL "T1" STRUT | | | | VERTICAL "ST1" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8D 595 | 9 | A242 | 2"x1½"x.25 | 1'-2½" | 4'-9¼" | 10 | A242 | 1.14 | 5'-3" | 3 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

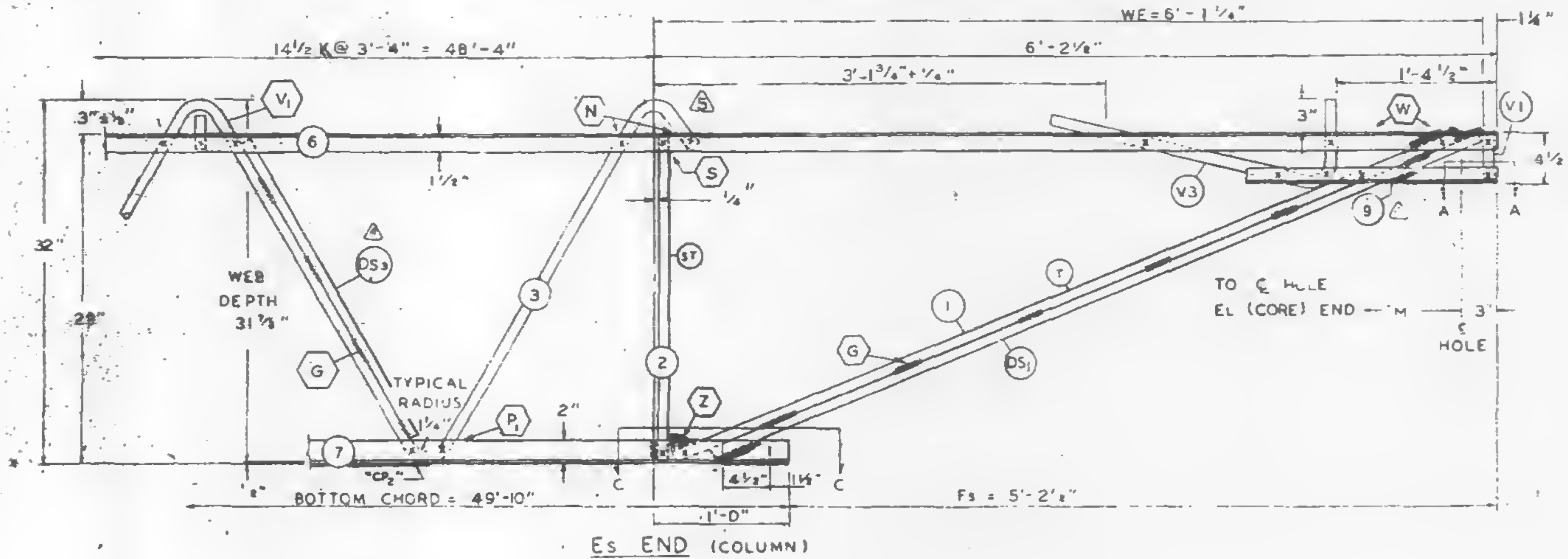
FLOOR TRUSS C32T8D 59'-5" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION FOR PONYA James White DATE 4/25/69
DRAWN BY [illegible] DATE APRIL 15, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE APRIL 15, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY LACLEDE STEEL CO.
FABRICATION CONT NO. WTC 221
SHEET NO. ST[illegible]

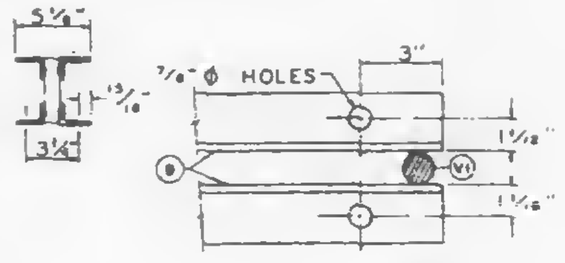

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14½ K @ 3'-4" = 48'-4"
FILLERS REQ'D IN 10 PANELS
STD. K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
EXCEPT THAT TOLERANCE = ½" GAP MAX.
TYPICAL
TYPICAL WEB SPLICE
MIDSPAN
WEB SPLICE
CP2
DS3
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
2'-8"
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 3/8" |
| WEB DEPTH | 9" | ± 3/4" |

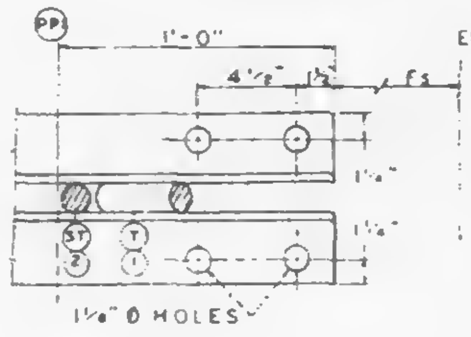


Es END (COLUMN)



SECTION A-A

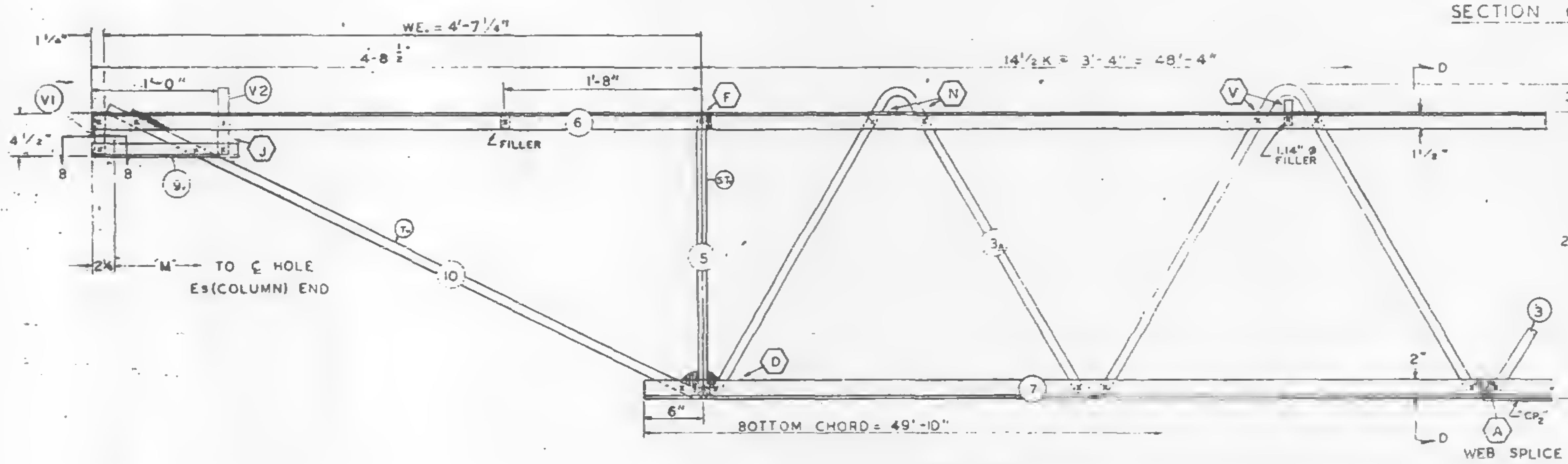
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R6.



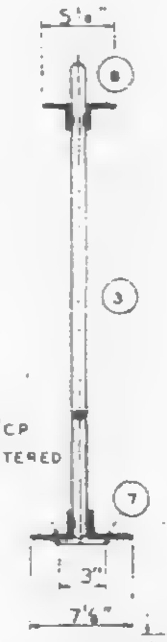
SECTION C-C

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 5 | 12-12-68 | AS NOTED | D.C.C. |
| 4 | 7-22-68 | MK ⑨ LENGTH & DS1 LENGTH | T.M.C. |
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |



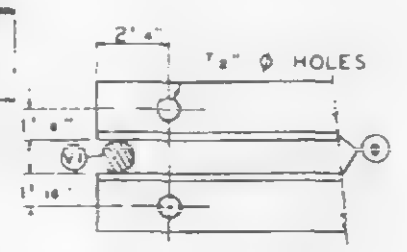
EL END (CORE)



SEC D-D

5 REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-88 |
| 7-AB1-52 | 2-15-88 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 | 8-1-88 |
| 7-AB3-2 | 1-3-88 |
| 7-AB4-50 5 | 10-20-87 |



SECTION B-B

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA. | LENGTH | NO OF K | FILLER NO | DIA. | "M" C-C HOLE | CONNECTION FILLERS NO | DIA. | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | DOUBLE STRUT MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8E-593 | 6 | A242 | 2"×1½"×.31 | 59'-3" | 7 | A36 | 3"×2"×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>12'-5½" | 12½@3'-4" = 41'-8"<br>2@3'-4" = 6'-4" | 11 | 1.09 | 58'-9¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼3" | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8E-693 | 9 | A242 | 2"×1½"×.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

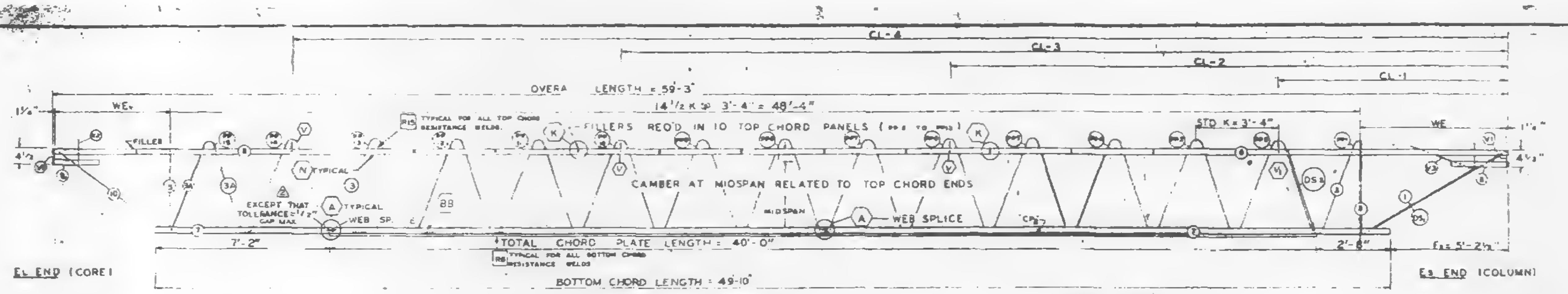
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE1 | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA. | LENGTH | MK V2 TYPE STEEL | DIA. | LENGTH | MK V4 TYPE STEEL | DIA. | LENGTH | WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8E-593 | 9 | A242 | 2"×1½"×.25 | 1'-2" | 4'-7¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | A242 | 1.14 | 7⅞" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

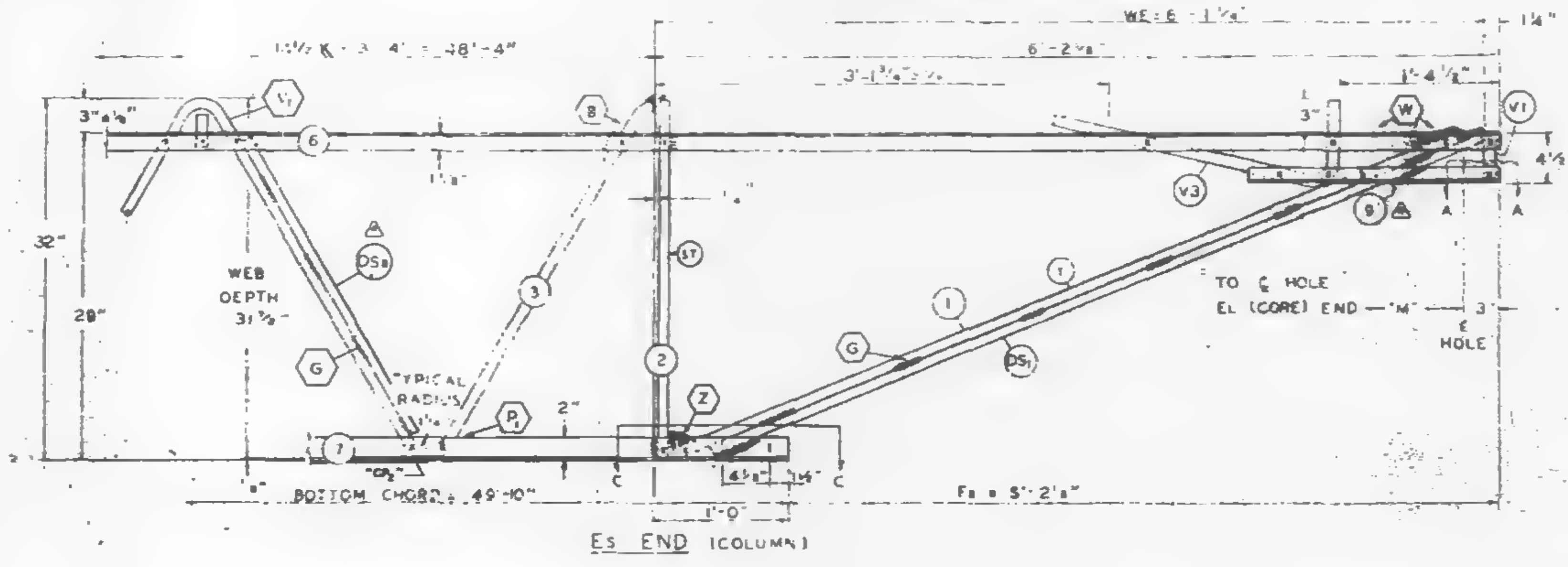
FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-5, 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE 12/19/68
DRAWN BY LR DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT NO W.T.C. 224
SHEET NO

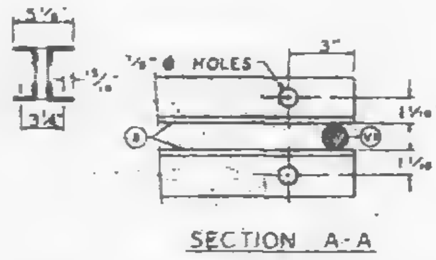

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14½ K @ 3'-4" = 48'-4"
WE
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
EXCEPT THAT TOLLERANCE ⅛" GAP MAX
TYPICAL WEB SP.
MIDSPAN
WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

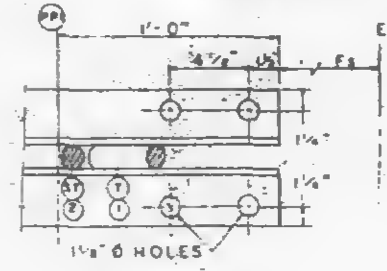
| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



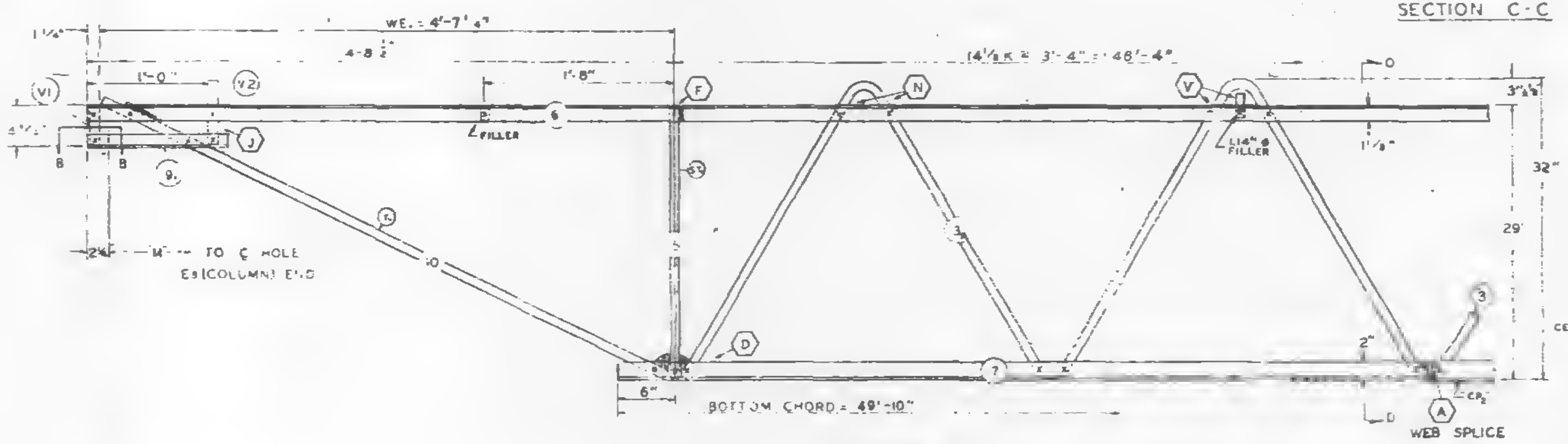
SECTION A-A



SECTION C-C

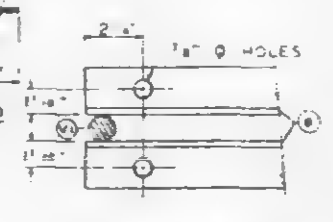
ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (CORE END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)

SEC D-D



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 7-22-68 | MK (9) LENGTH & DS2 LENGTH | T.M.C. |
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 4-3-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO. OF K | FILLER NO | DIA | "M" ℄ HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | DOUBLE STRUT MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8E-593 | 6 | A242 | 2"x1½"x.31 | 69'-3" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10⅞"<br>2'-3½" | 12 @ 3'-4" + 41'-8"<br>2 @ 3'-4" + 6'-8" | 11 | 1.09 | 56'-9¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP | A36 | ¾x3 | 40'-0" | DS2 | A242 | .75 | 2'-6¾" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | [illegible] | DS | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

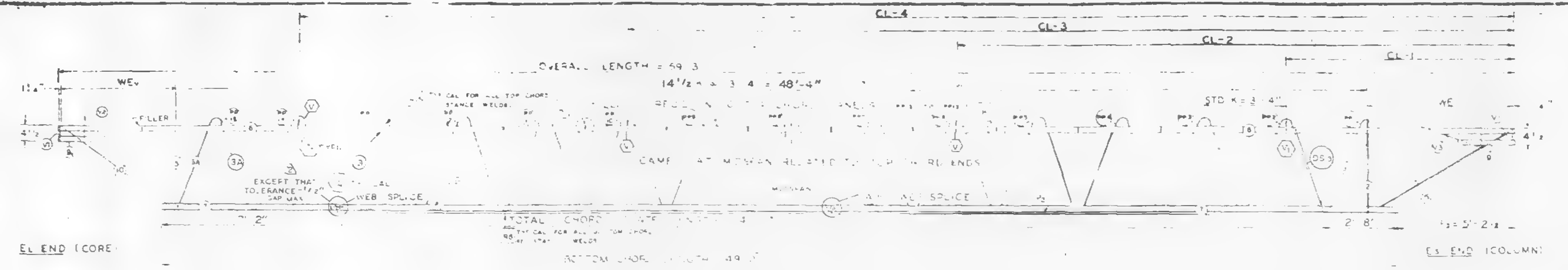
CORE END

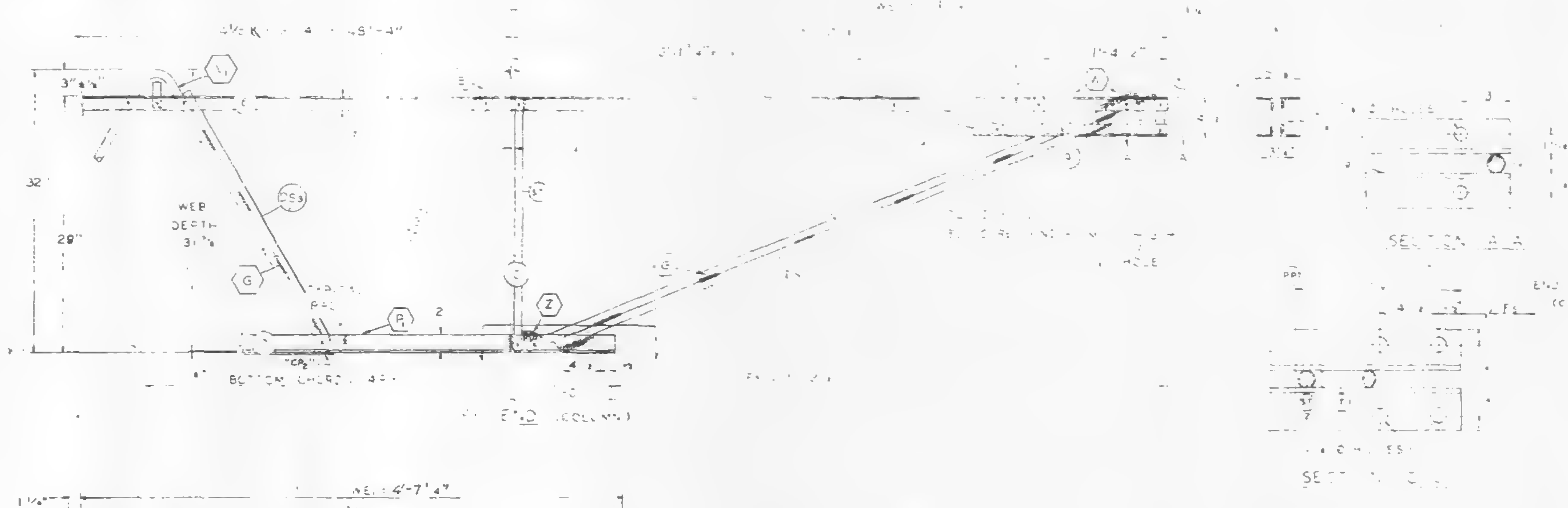
| EL END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB MK | TYPE STEEL | PCS | DIA | LENGTH | WEB MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8E-593 | 8 | A242 | 2½"x1½"x.25 | 1'-2" | 4'-7¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4" | A242 | 1.14 | [illegible] | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

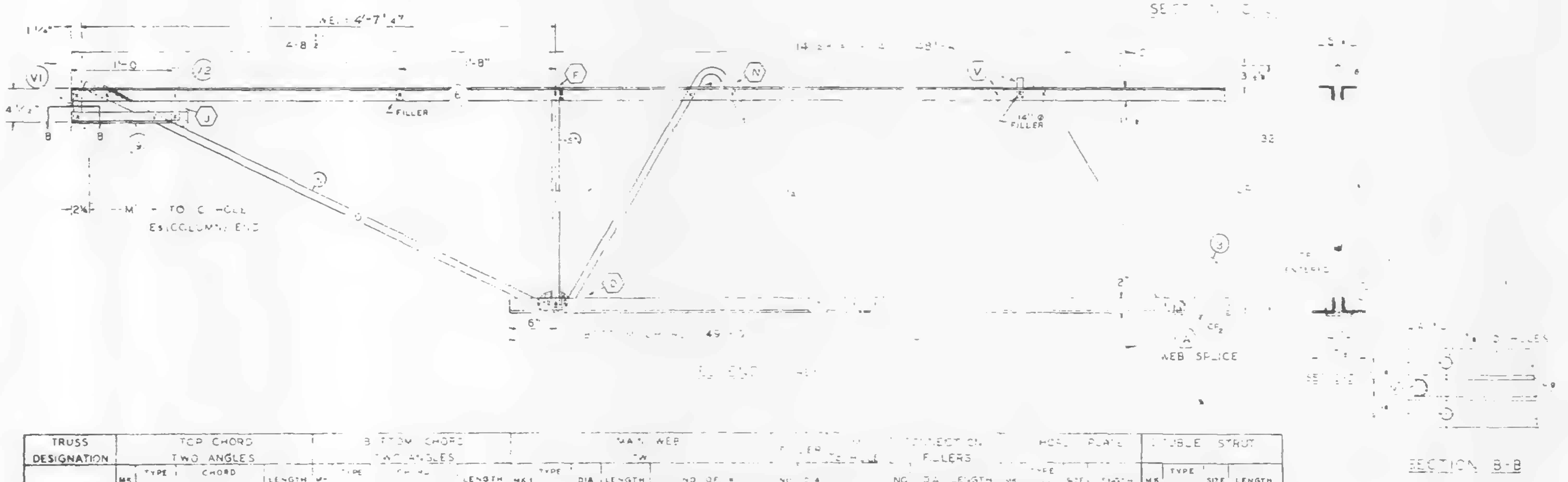
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. DATE 3/4/68
DRAWN BY [illegible] DATE FEB 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB 24, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO. A.C. WEBER
FABRICATION CONT NO W.T.C. 221.00
SHEET NO [illegible]





CAMBER UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD ONE END IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

ALL PANEL POINTS RESISTANCE WELDED x
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST293.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CAMBER PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R6].



| | | | |
|---|---|---|---|
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C |
| NO | DATE | REVISION | BY |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 1-3-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB3-2 | 1-5-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE SHOP COAT
REQ. NO. 1200

**FABRICATION REQUIRMENTS**

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | | ± 1/4" |
| PANEL POINT | 3'-4" | ± 1 |
| OVERALL LENGTH | 59'-3 | ± 3/8" |
| WEB DEPTH | 31 7/8 | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | FILLER | | | CONNECTION FILLERS | | | HORIZ PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF | NO | DIA | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8E-593 | 6 | A242 | 2"x1½"x [illegible] | 59'-3 | 7 | A36 | 3 x 2 x .33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10⅜<br>12'-5½" | 12 2 3 3'-4" = 41'-8"<br>2 2 3 3'-4" = 6'-8" | 1 | 1.09 | 3<br>1 | 1.09<br>1.14 | 4" | CR | A36 | [illegible] | 40'-0" | DS3 | A242 | .75 | 2'-8½" |

COLUMN END

| ES END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-1¼" | | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅝" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3¼" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½ | 22'-10½ | 36'-2½ | 49'-6½ | 5-2½ |

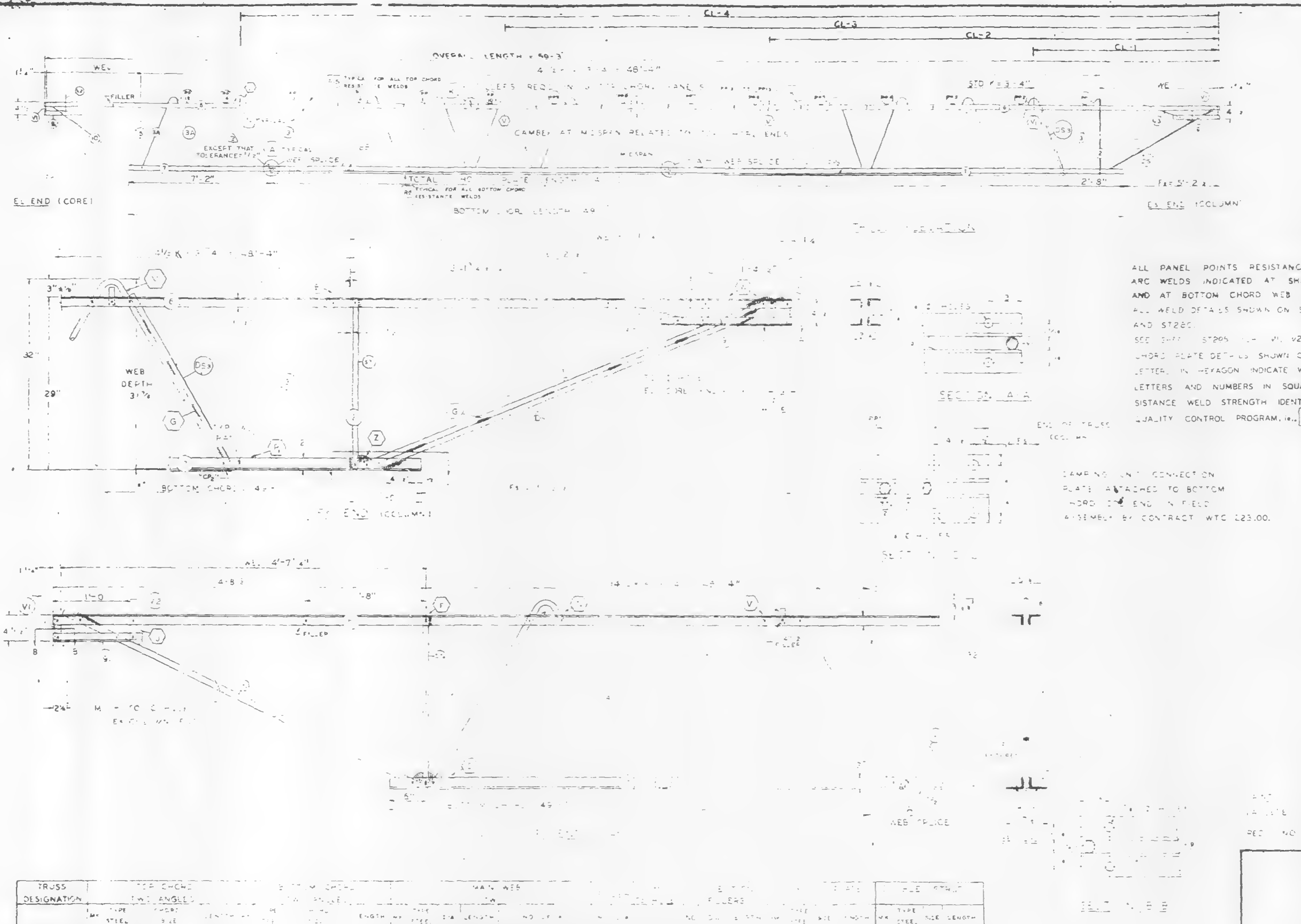
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T8E-593 | 8 | A242 | 2"x1½"x.25 | 1'-2" | 4'-7¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4⅜" | A242 | .14 | 4⅞" | A242 | .14 | 7⅛" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION FOR PONYA BY JW DATE 7/12/68
DRAWN BY [illegible] DATE FEB 24, 1968
APPROVED FOR FABRICATION FOR FABRICATOR BY DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO.



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | ± 3/4 |
| WEB DEPTH | 31 3/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED ×
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.
SEE SHEET ST295 FOR V1, V2 & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF DRWGS
7-AB1-5 4-15-68
7-AB1-52 2-5-68
7-AB1-53 1-3-68
7-AB4-50 & 50.2 10-20-67
7-AB3-2 [illegible] 68
7-AB4-50.5 10-20-67

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | MAIN WEB | | | | | | FILLERS | | | | HUE STRUT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO | [illegible] | NO | [illegible] | [illegible] | LENGTH | MK | TYPE STEEL SIZE | LENGTH |
| C32T8E-593 | 6 | A242 | [illegible] | 59'-3" | [illegible] | [illegible] | 49'-10" | [illegible] | A36<br>A242 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | DS3 | [illegible] | 8" |

| COLUMN END | E₅ END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | HUE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 6'-1¼" | | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅜" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS3 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | F₅ |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

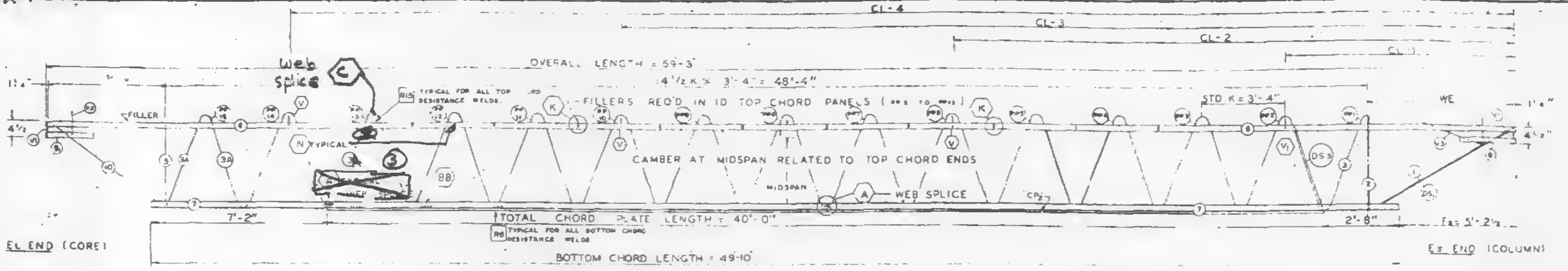
| CORE END | E₁ END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 1'-2" | 4'-7¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

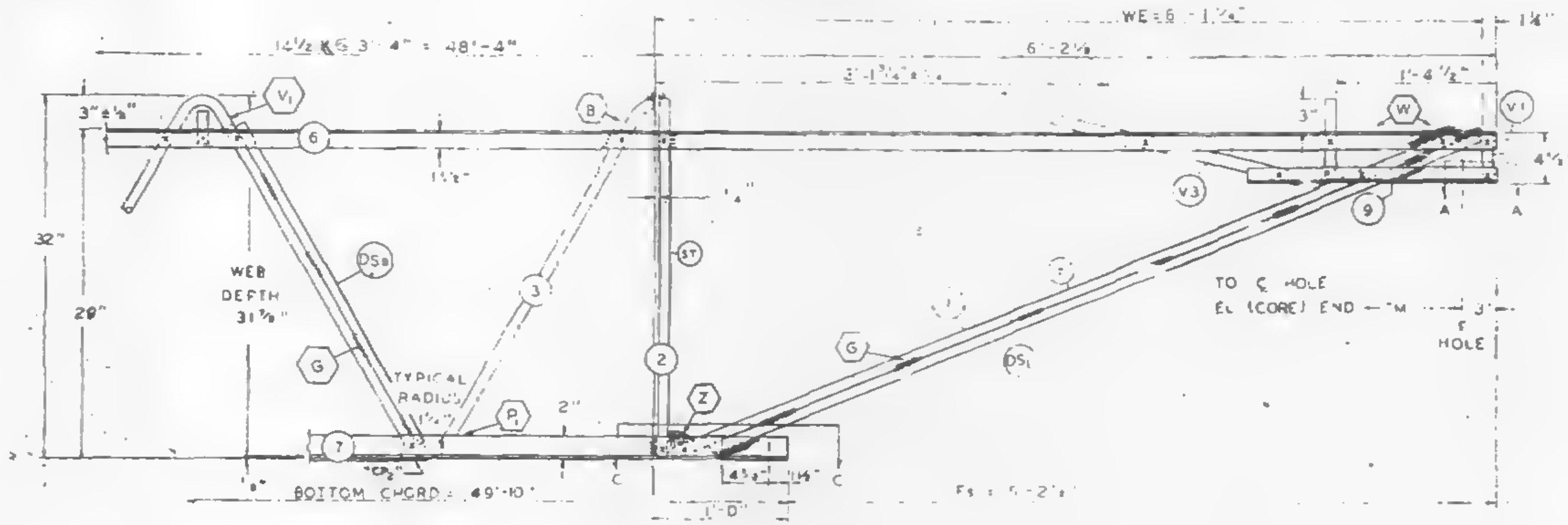
FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

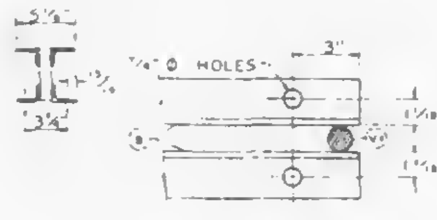
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-5 7-AB1-2 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR PONYA | DATE 7/5/68 | DRAWN BY [illegible] DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY J R PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD DEV |
| DETAILED BY A.C. WEBER | | FABRICATION CONT NO W.T.C. 221 | SHEET NO. [illegible] |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 1/2 K x 3'-4" = 48'-4"
Web splice Ⓒ
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
FILLER
WE
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
A WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
2'-8"
Es 5'-2 1/2"
EL END (CORE)
Es END (COLUMN)
1'4"
4 1/2"

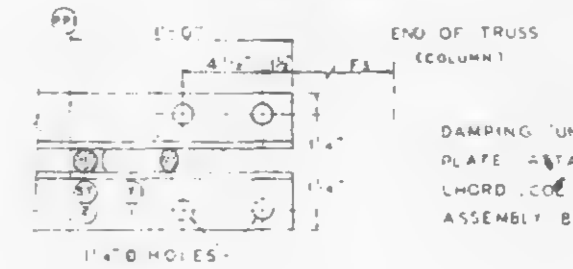
TRUSS ELEVATION



Es END (COLUMN)



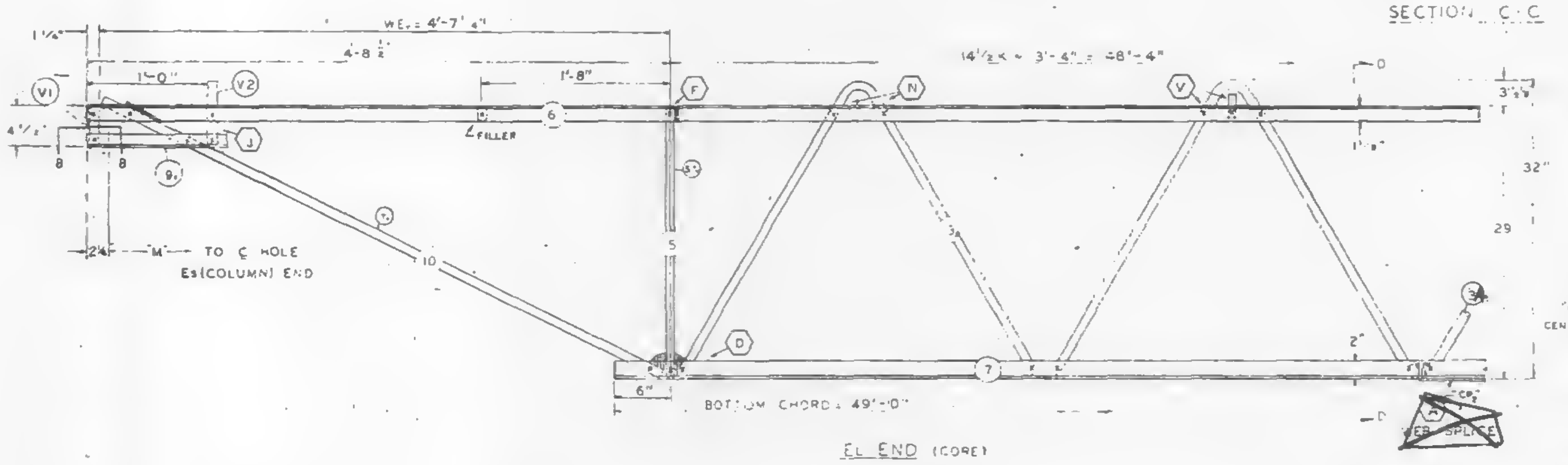
SECTION A-A



SECTION C-C

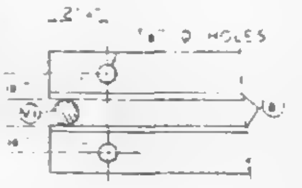
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

ALL PANEL POINTS RESISTANCE WELDED ✕
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.



EL END (CORE)

SEC D-D



SECTION B-B

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | + 0 -3" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠ | 6-22-68 | GENERAL | T.M.C. |

| REF DRWGS | | |
|---|---|---|
| | 7-AB1-5 | 4-15-68 |
| | 7-AB1-52 | 2-15-68 |
| | 7-AB1-53 | 1-3-68 |
| | 7-AB4-50 & 50 2 | 10-20-67 |
| | 7-AB3-2 | 1-3-69 |
| | 7-AB4-50 3 | 10-20-67 |

6/25/68 WOB

PAINT
LACLEDE ELECTRCCOAT
RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8E-593 | 6 | A242 | 2"x1 1/8"x.31 | 69'-3" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10"<br>12'-5 1/2" | 12 @ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-9 3/4" | 4<br>1 | 1.09<br>1.14 | 3"<br>3" | CP | A36 | 1/4x3" | 40'-0" | DS3 | A242 | .75 | 2'-8 1/2" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8E-593 | 9 | A242 | 2"x1 1/8"x.25 | 2'-0" | 6'-1 1/4" | 1 | A36 | 1.09 | 6'-3 1/4" | 2 | A36 | 1.09 | 2'-7 7/8" | A36 | 1.09 | 4 7/8" | A36 | 1.09 | 2'-9 1/8" | DS1 | A242 | .92 | 6'-3 1/4" |

CORE END

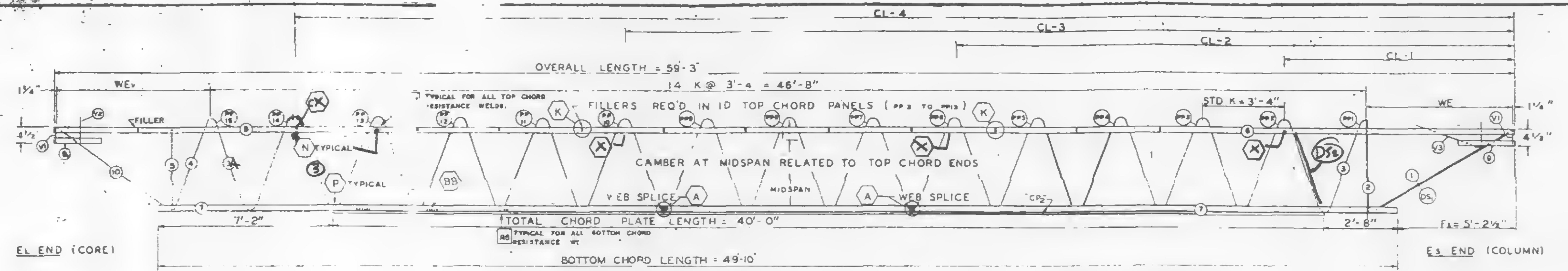
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCE | DIA | LENGTH | MK | TYPE STEEL | PCE | DIA | LENGTH |
| | C32T8E-593 | 8 | A242 | 2"x1 1/8"x.25 | 1'-2" | 4'-7 1/4" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4 3/8" | A242 | 1.14 | 4 1/2" | A242 | 1.14 | 7 1/4" | — | — | — | — | — | — | — | — | — | — | — | — | — |

| CHECK DIMENSION FOR TRUSS FAB<br>LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-8 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 5'-2 1/2" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

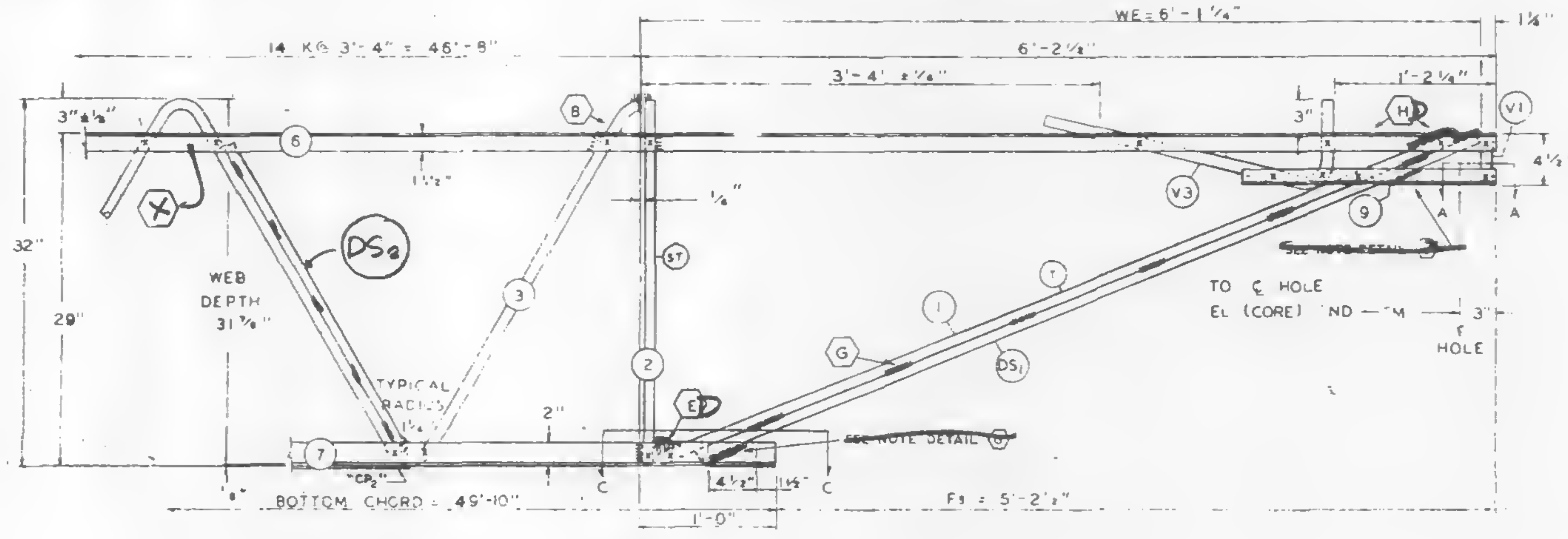
FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE
DRAWN BY LH DATE FEB 24,1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD DEV
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO. ST208E

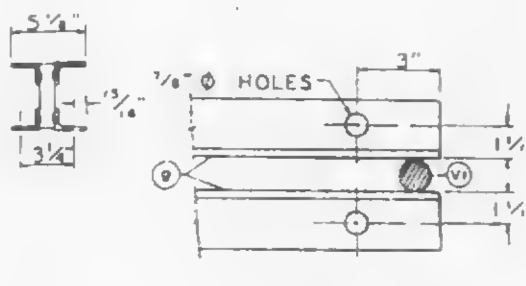

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-3"
14 K @ 3'-4 = 46'-8"
WE
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN ID TOP CHORD PANELS (PP3 TO PP13)
FILLER
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
WEB SPLICE
TOTAL CHORD PLATE LENGTH = 40'-0"
R5 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WC
7'-2"
2'-8"
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
El END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

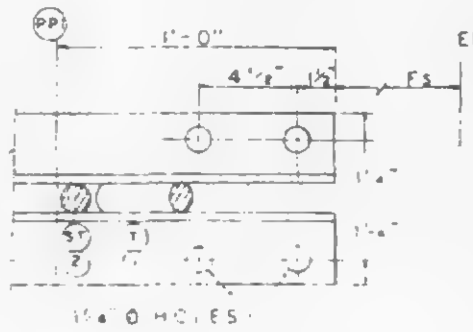
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-3" | 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



## Es END (COLUMN)



## SECTION A-A



## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

ALL PANEL POINTS RESISTANCE WELDED (K)

ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬

ALL WELD DETAILS SHOWN ON SHEETS ST29D, ST291, AND ST280.

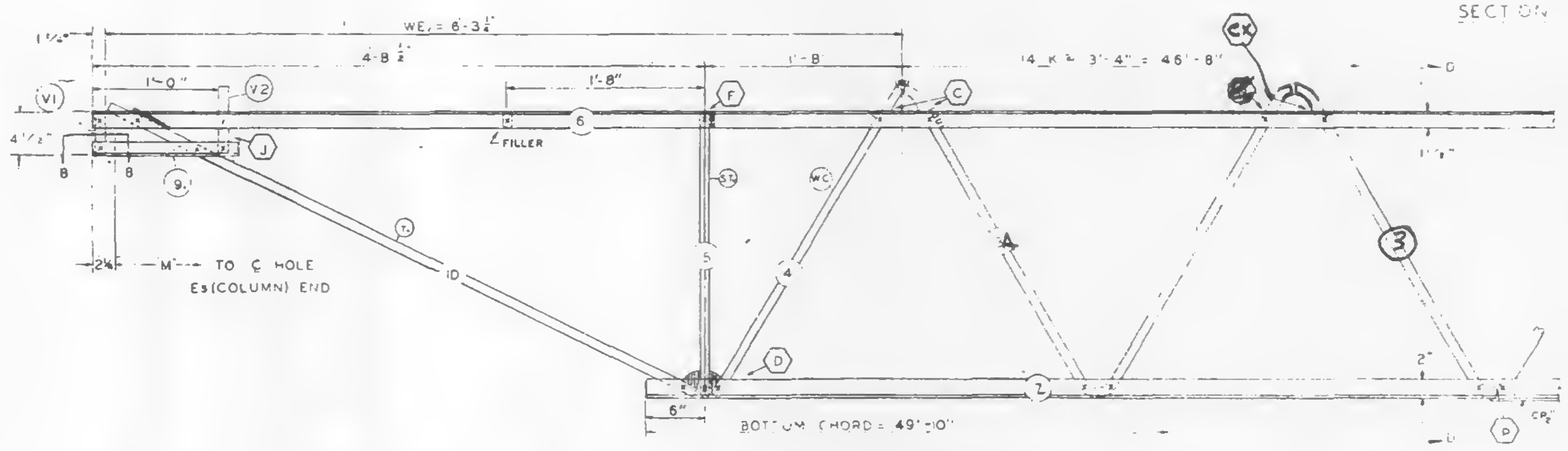
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.

CHORD PLATE DETAILS SHOWN ON SHEET ST28D.

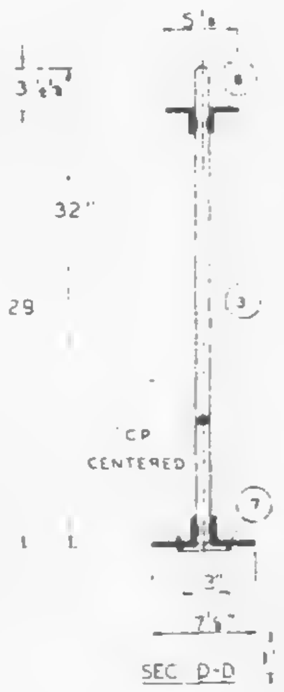
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.

LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

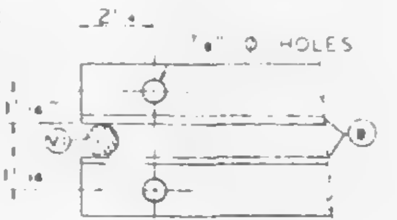
6/17/68 WAB



## El END (CORE)



SEC D-D



## SECTION B-B

4-15-68

| REF DRWGS | | |
|---|---|---|
| | 7-AB1-5 | 2-15-68 |
| | 7-AB1-52 | 2-15-68 |
| | 7-AB1-53 | 1-3-68 |
| | 7-AB4-50 & 50.2 | 10-20-67 |
| | 7-AB3-2 | |
| | 7-AB4-50.5 | 10-26-6 |

PAINT

LACLEDE ELECTROCOAT

RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TOP CHORD TYPE STEEL | TOP CHORD CHORD SIZE | TOP CHORD LENGTH | BOTTOM CHORD TWO ANGLES MK | BOTTOM CHORD TYPE STEEL | BOTTOM CHORD CHORD SIZE | BOTTOM CHORD LENGTH | MAIN WEB "W" MK | MAIN WEB TYPE STEEL | MAIN WEB DIA | MAIN WEB LENGTH | NO. OF K | FILLER NO | FILLER DIA | "M" C.C HOLE | TRUSS DATA | | CHORD PLATE MK | CHORD PLATE TYPE STEEL | CHORD PLATE SIZE | CHORD PLATE LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8E-593 | 6 | A242 | 2"x1½"x.31 | 59'-3" | 7 | A36 | 3x2"x.33 | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'-4" = 46'-8" | 11 | 1.09 | 58'-9¾" | | | CP₂ | A36 | ¼x3" | 40'-0" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | MK. V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅝" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9½" | DS₁ | A242 | .75 | 6'-3½" |
| | | | | | | | | | | | | | | | | | | | | | DS₂ | A242 | .75 | |

| CHECK DIMENSION FOR TRUSS FAB<br>LOCATION OF TRANS TRUSS CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

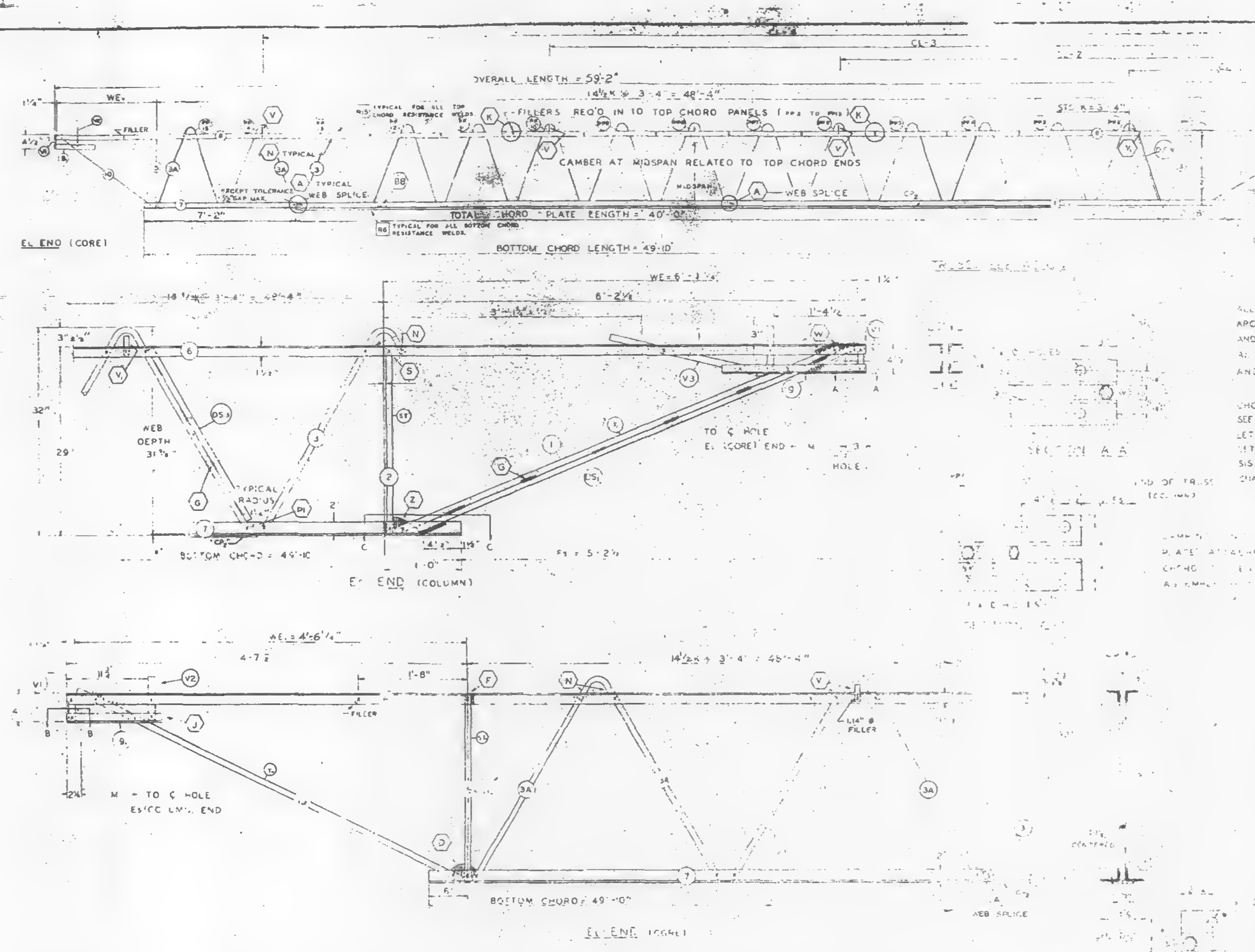
| El END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. V4 TYPE STEEL | DIA | LENGTH | WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA. | LENGTH | Web AK | TYPE STEEL | DIA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T8E-593 | 9 | A242 | 2"x1½"x.25 | 1'-2" | 6'-3¼" | 10 | A242 | 1.14 | 5'-1" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | — | — | — | — | — | 3A | A242 | 1.14 |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8E 59'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 PLATE | |
| APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE | DRAWN BY [illegible] DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY LACLEDE STEEL CO. FOR FABRICATOR DATE | CHECKED BY J.R. PAUL DATE FEB. 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A.C. WEBER | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST208E |



ALL PANEL POINTS RESISTANCE WELDED & ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ▬. ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST28_.

CHORD PLATE DETAILS SHOWN ON SHEET ST280. SEE SHEET ST295 FOR V1, V2, & V3 DETAILS. LETTERS IN HEXAGON INDICATE WELD DETAIL, e.g. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, e.g. R6

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 1/2" |
| DESIGN DEPTH | 30" | ± 1/4" |
| PANEL PT | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-2" | ± 3/4" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

REF. DRWGS

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF ℄ | FILLERS NO | DIA | M ℄ HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8F 592 | 6 | A242 | 2"x1½"x.31 | 59'-2" | 7 | A36 | 3"x2"x.3_ | 49'-10" | 3<br>3A | A36<br>A242 | 1.08<br>1.14 | 78'-3¾"<br>112'-5½" | 12½ @ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-8¼" | 2<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | [illegible] | 40'-0" | CS3 | A242 | .75 | 2'-6¾" |

**COLUMN END**

| ℄ END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T8F -592 | 9 | A242 | 2"x1½"x.25 | 2'-3' | 6'-1¼" | 1 | A36 | 1.09 | 6'-3½" | 2 | A36 | 1.09 | 2'-4⅝" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | 105 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS CL-1 | CL-2 | CL-3 | CL-4 | F3 |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

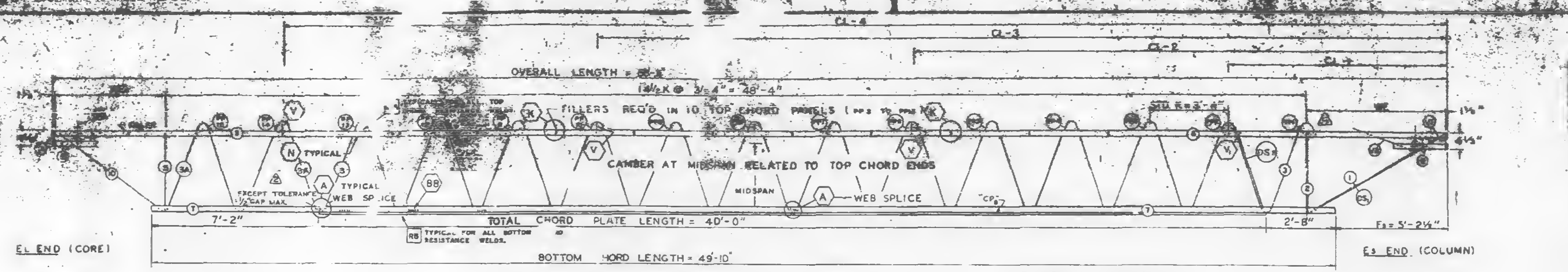
**CORE END**

| ℄ END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T8F -592 | 9 | A242 | 2"x1½"x.25 | 1'-1¾" | 4'-6¼" | 10 | A242 | 1.14 | 5'-0½" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4" | A242 | 1.14 | 7⅞" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
PORT OF NEW YORK AUTHORITY

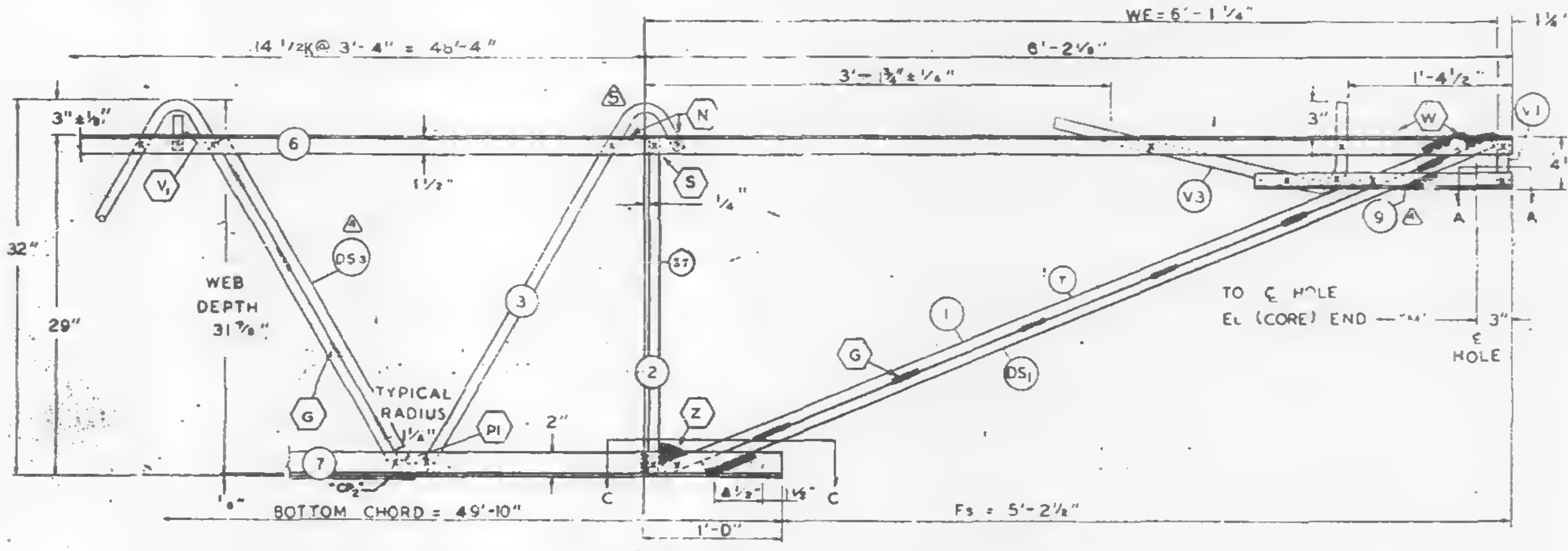
FLOOR TRUSS C32T8F 59'-2" OVERALL
WORLD TRADE CENTER IDA

FABRICATED BY LACLEDE STEEL COMPANY
ALTON, ILLINOIS
James White 3/24/69
DESIGN DRAWING NO 7-ABF-5 7-AB3-2
DRAWN BY
DATE MAR 6, 1969
CHECKED BY
DATE MAR 6, 1969
PLATE
IN CHARGE OF PROD. DEV.
FABRICATION CONT NO WTC 221
SHEET NO ST2

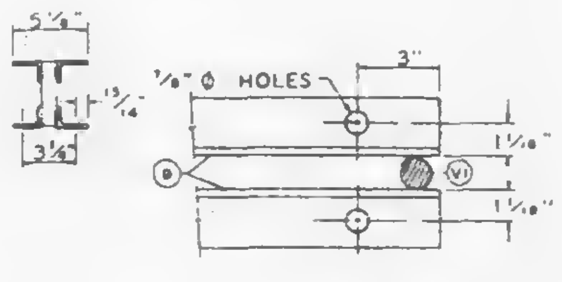

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14½ K @ 3'-4" = 48'-4"
FILLERS REQ'D IN 10 TOP CHORD PANELS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
N TYPICAL
A TYPICAL WEB SPLICE
A WEB SPLICE
EXCEPT TOLERANCE ½" GAP MAX.
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
RB TYPICAL FOR ALL BOTTOM RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

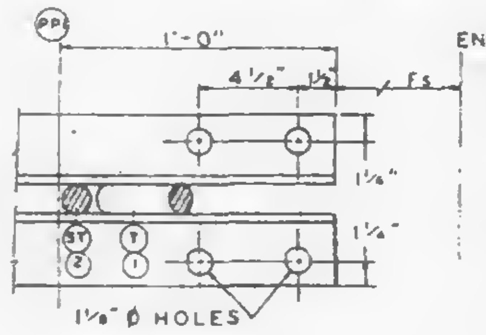
| FABRICATION [illegible] | |
|---|---|
| | [illegible] |
| CAMBER AT MIDSPAN | [illegible] |
| DESIGN DEPTH | [illegible] |
| [illegible] "K" | [illegible] |
| OVERALL LENGTH | 58'-11" [illegible] |
| WEB DEPTH | [illegible] 1/4" |



Es END (COLUMN)



SECTION A-A



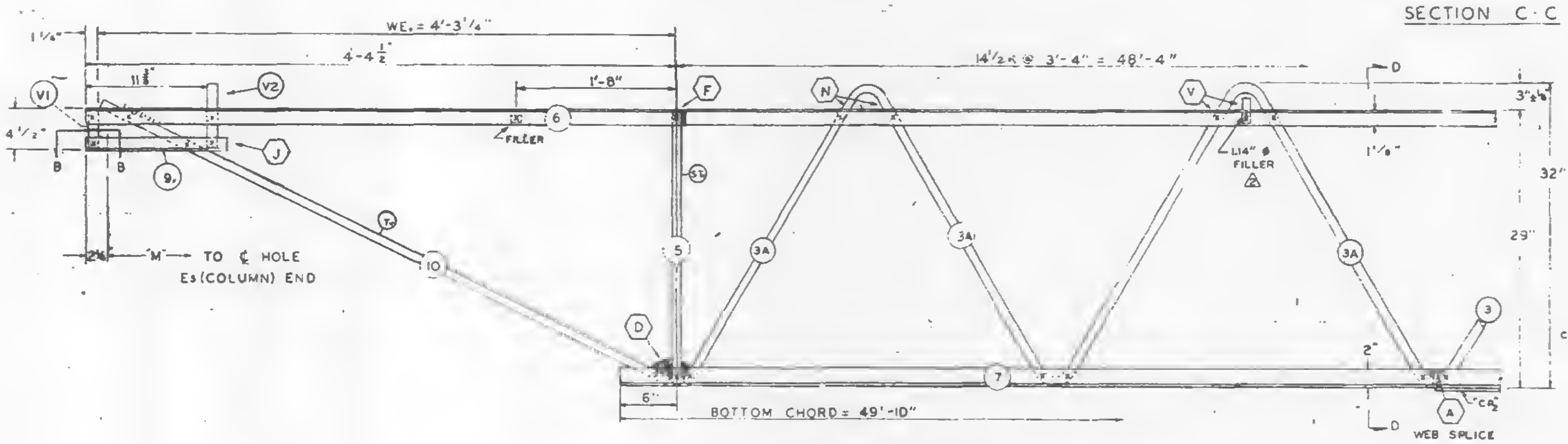
END OF TRUSS (COLUMN)

SECTION C-C

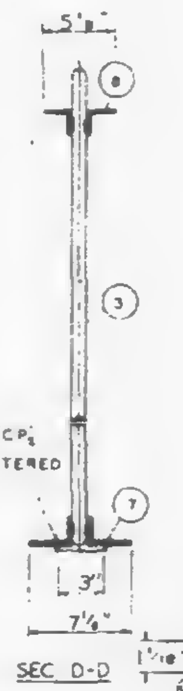
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292.
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

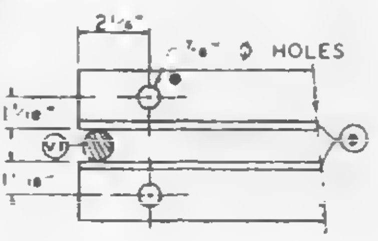
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 5 | 12-12-68 | AS NOTED | D.C.C. |
| 4 | 7-22-68 | MK. 9 LENGTH & DS1 LENGTH | T.M.C. |
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

5 REF. DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-10 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-SD5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | 5 LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | 4 LENGTH |
| C32T8G-5811 | 6 | A242 | 2"x1½"x.31 | 58'-11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>12'-5½" | 12½ @ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-5¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼x3 | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

2 (under CONNECTION FILLERS)

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | 4 LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | 5 LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8G-5811 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

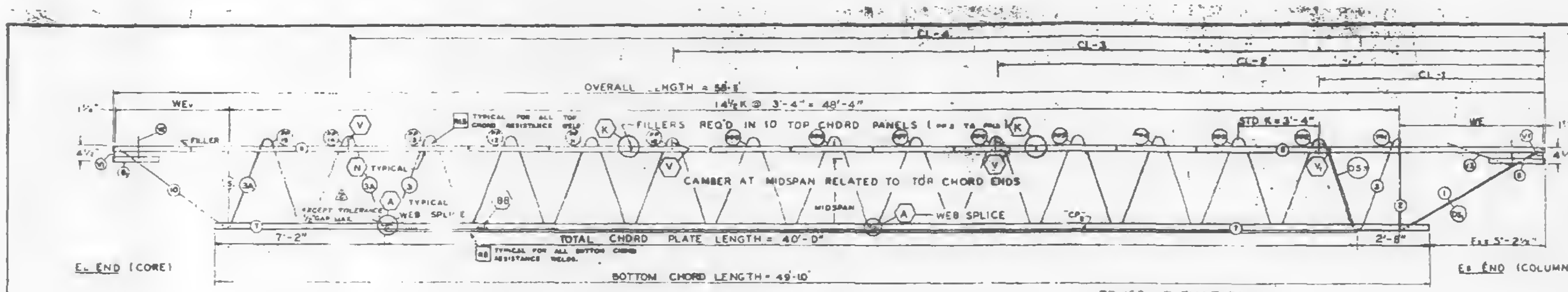
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V[illegible] | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | 5 LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8G-5811 | 9 | A242 | 2"x1½"x.25 | 1'-1¼" | 4'-3¼" | 10 | A242 | 1.14 | 4'-9¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4½" | A242 | 1.14 | 7½" | — | — | — | — | — | — | — | — | — | — | — | — | — |

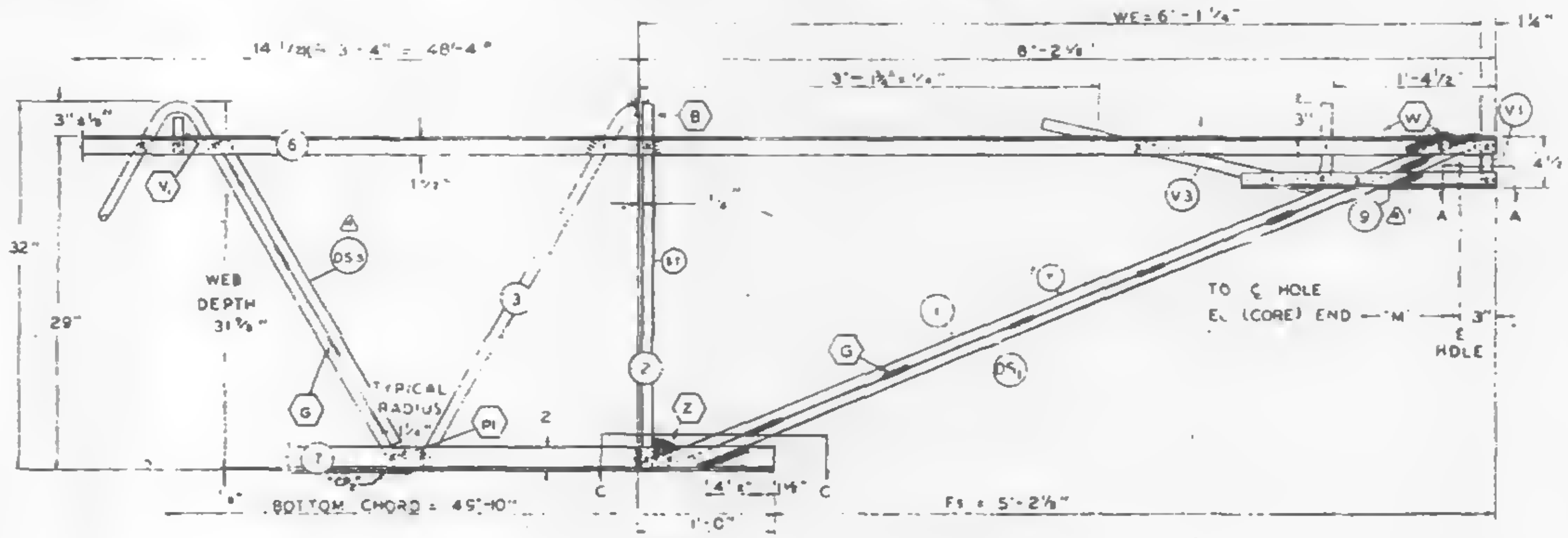
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

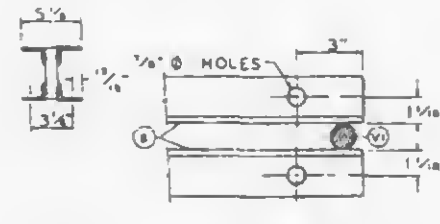
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION James White FOR PONYA DATE 12/19/68
DRAWN BY [illegible] DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.R. PAUL DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY A.C. WEBER
FABRICATION CONT NO WTC 221
SHEET NO. ST[illegible]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14½ K @ 3'-4" = 48'-4"
WE
WE
1½"
4½"
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELD
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
TYPICAL
EXCEPT TOLERANCE ½" GAP MAX.
TYPICAL WEB SPLICE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
CP1
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)

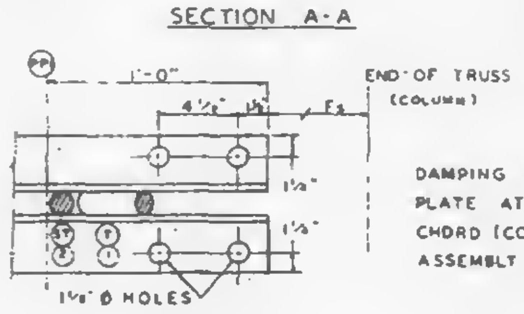
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A

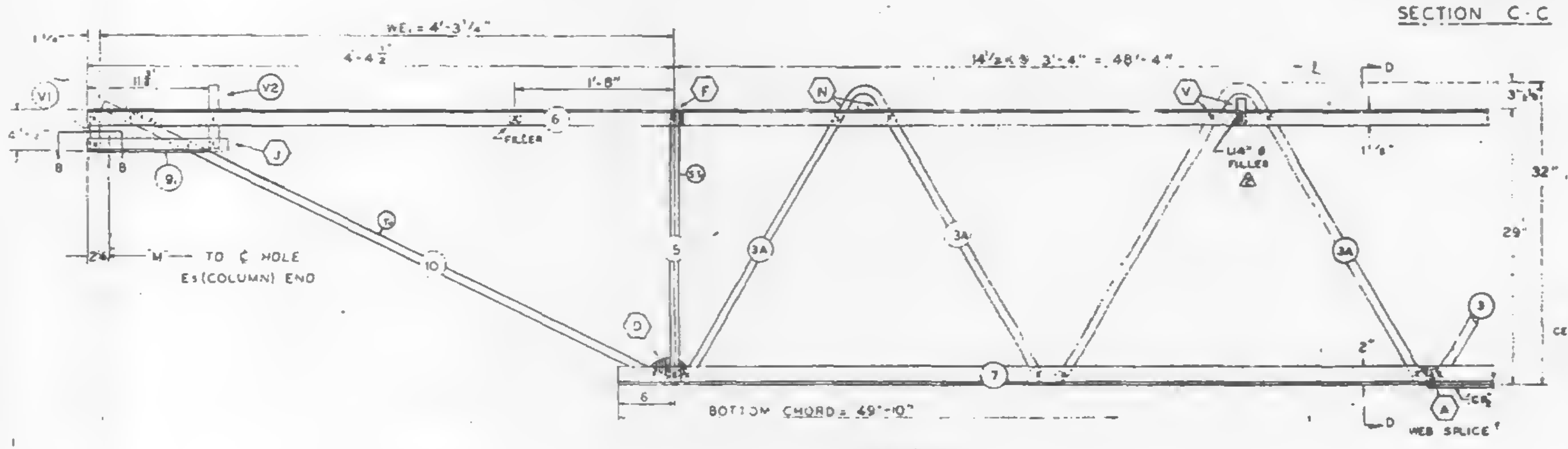


SECTION C-C

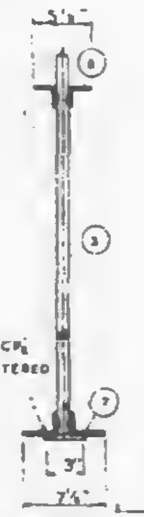
ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

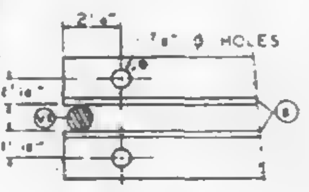
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SEC. D-D



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 38" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | 3 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 7-22-68 | MK ⑨ LENGTH & DS1 LENGTH | T.M.C. |
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 1-3-68 |
| 7-AB4-30 & 30 2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-30 3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8G-5811 | 6 | A242 | 2"×1½"×.3 | 58'-11" | 7 | A36 | 3"×2"×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 7'-10⅜"<br>12'-5½" | 12½@ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-5⅝" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP1 | A36 | ⅝×3 | 40'-0" | DS1 | A242 | .75 | 2'-6⅞" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8G-5811 | 9 | A242 | 2"×1½"×.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 35'-2½" | 48'-8½" | 5'-2½" |

**CORE END**

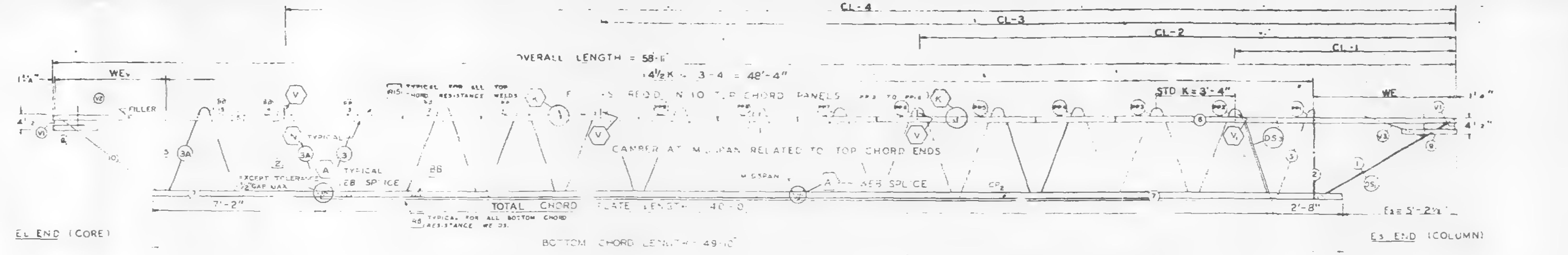
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | [illegible] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8G-5811 | 9 | A242 | 2"×1½"×.25 | 1'-1¼" | 4'-3¼" | 10 | A242 | 1.14 | 4'-9" | 5 | A242 | 1.14 | 2'-4⅜" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

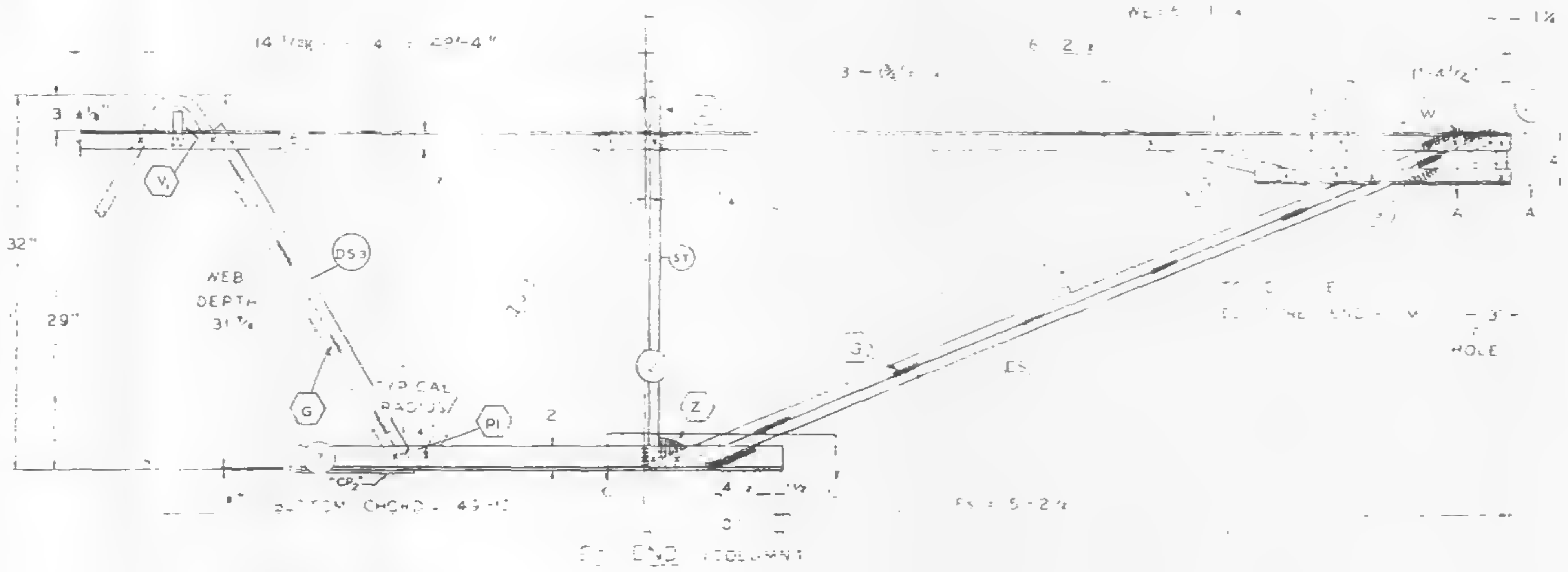
FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER · TOWER A-B

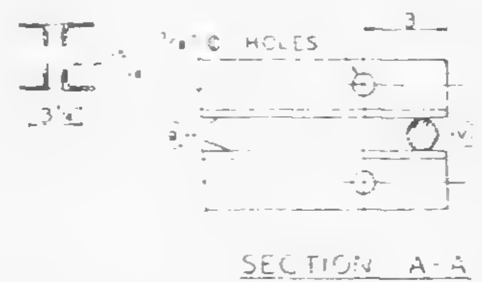
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY WAC FOR PONYA | DATE 4/2/68 | DRAWN BY LA DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY JF PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO. | | FABRICATION CONT NO 221 | SHEET NO ST208G |

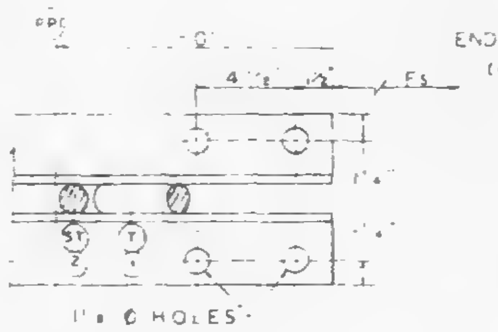

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14 1/2 K = 3'-4" = 48'-4"
STD K = 3'-4"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
EXCEPT TOLERANCE GAP MAX.
WEB SPLICE
MIDSPAN
TOTAL CHORD PLATE LENGTH 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH 49'-10"
7'-2"
2'-8"
Es = 5'-2 1/2"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION





SECTION A-A

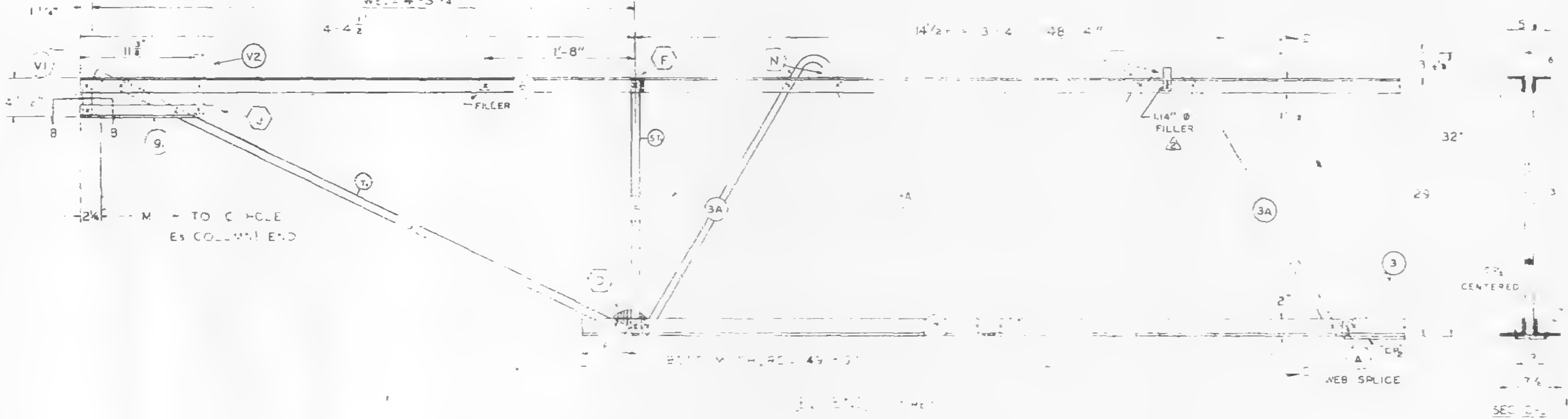


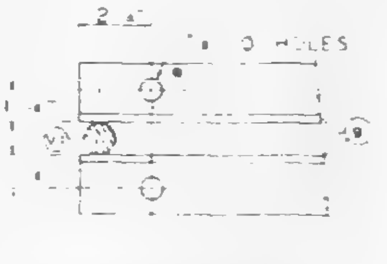
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED EXCEPT ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.





SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 8" | ± 1/4" |
| PANEL "K" | 4" | ± 1/4" |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | 31 7/8 | ± 1/4 |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 7-8-68 | TOLERANCE, WEB SPLICE | T.M.C. |
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C. |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 1-3-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8G-58'11 | 6 | A242 | 2 x [illegible] | 58 | 7 | A36 | 3" x 2" x 3 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10 3/8"<br>12'-5 1/2" | 12 1/2 @ 3'-4" = 41'-8"<br>2 @ 3'-4 = 6'-8" | 1 | .?9 | 58'-5 3/4" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | [illegible] | 4x3 | 40'-0" | DS3 | A242 | .75 | 2'-8 1/2" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8G-58'11 | 9 | A242 | 2"x1 1/2"x.25 | 2'-0" | 6'-?" | 1 | A36 | 1.09 | 6'-3 1/8" | 2 | A36 | 1.09 | 2'-7 7/8" | A36 | 1.09 | 4 ?" | A36 | 1.09 | 2'-9 ?" | DS11 | A242 | .92 | 6'-3 1/8" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 5'-2 1/2" |

**CORE END**

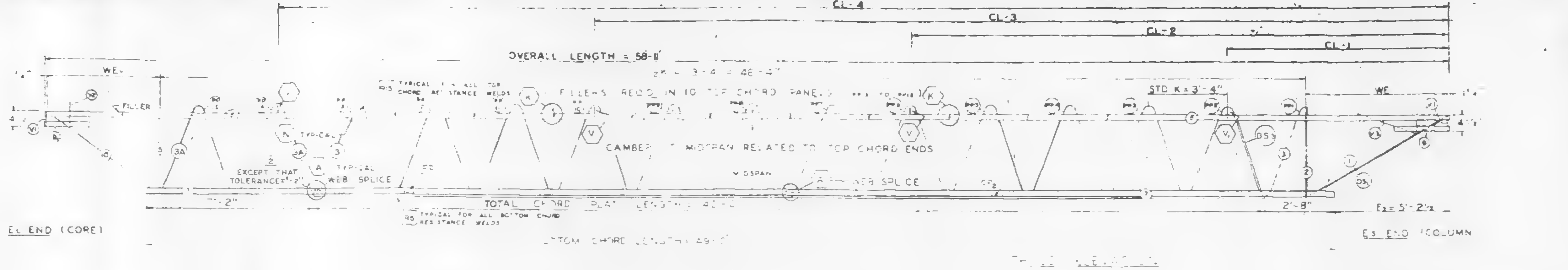
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE. | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA. | LENGTH |
| | C32T8G-58'11 | 9 | A242 | 2"x1 1/2"x.25 | 1'-1 1/4" | 4'-3 1/4 | 0 | A242 | 1.14 | 4'-9 1/2" | 5 | A242 | 1.4 | 2'-4 3/4" | A242 | 1.4 | 4 1/2 | A242 | 1.4 | 7 1/2 | — | — | — | — | — | — | — | — | — | — | — | — | — |

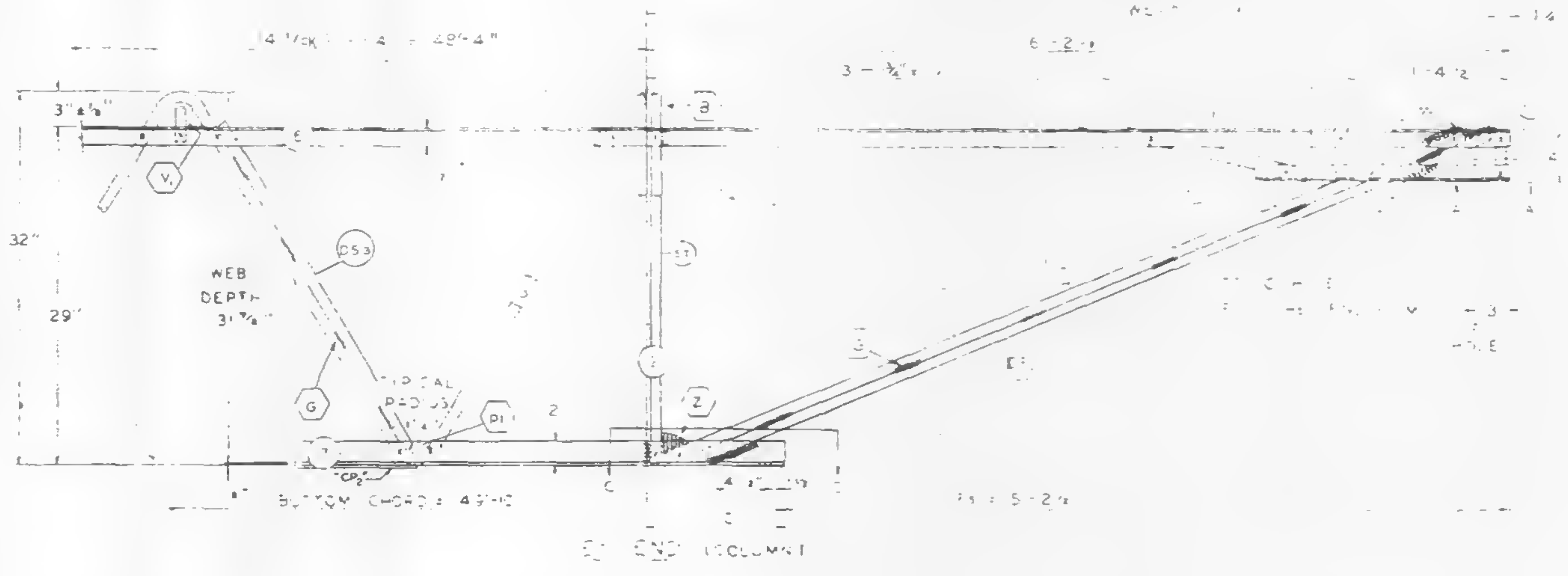
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

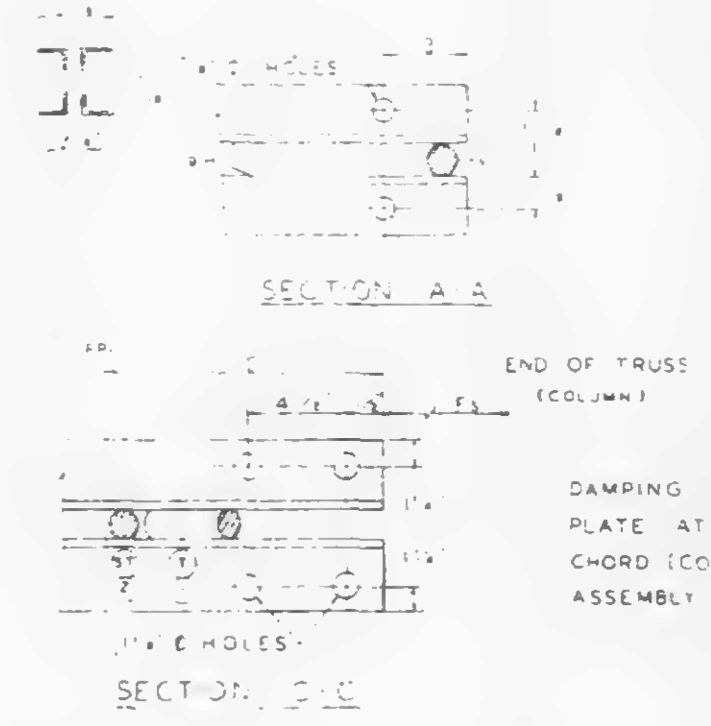
FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR [illegible] | DATE 7/12/68 | DRAWN BY [illegible] DATE FEB. 24, 1968 | |
| APPROVED FOR FABRICATION BY [illegible] | DATE | CHECKED BY J.R. PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD DEV |
| [illegible] | | FABRICATION CONT NO 221 | SHEET NO ST2086 |



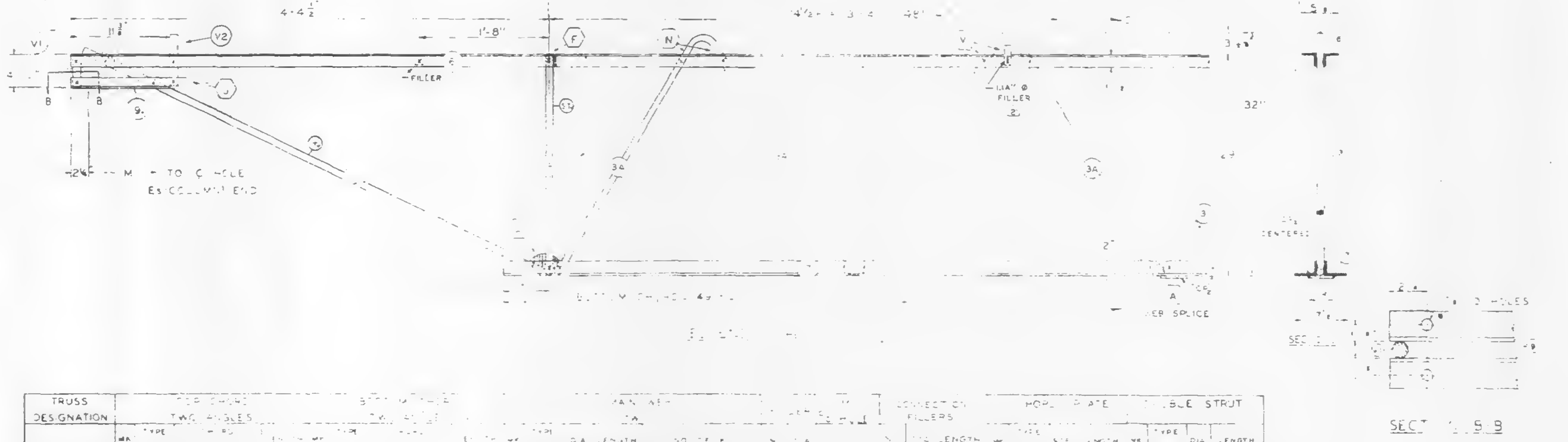




ALL PANEL POINTS RESISTANCE WELDED ×
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292.
AND ST280.

CHORD PLATE DETAIL SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | 29" | ± ¼" |
| PANEL "K" | 3'-4" | ± ¼" |
| OVERALL LENGTH | 58'-11" | ± 3 |
| WEB DEPTH | 3' 7.6" | ± ¼" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-27-68 | AS NOTED | T.M.C. |
| 1 | 6-22-68 | GENERAL | T.M.C |

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 1-3-68 |
| 7-AB4-50 & 50 2 | 10-20-67 |
| 7-AB3 2 | 1-3-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | CONNECTION FILLERS | | HORIZ PLATE | | | | DOUBLE STRUT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO | NO | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH |
| C32T8G-58' | 6 | A242 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible]<br>12'-5½" | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 40'-0" | A242 | [illegible] | [illegible] |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "S" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | [illegible] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8G-58' | 9 | A242 | 2"×1½"×.25 | 2'-0" | 6'-1¼" | 1 | A36 | .99 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6⅛" | 22'-10⅛" | 36'-2⅛" | 49'-6⅛" | 5'-2½" |

**CORE END**

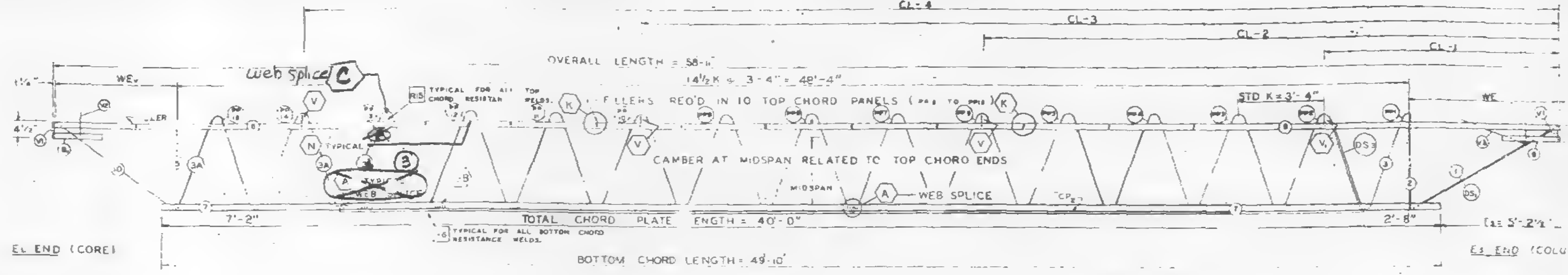
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "S" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8G-58' | 9 | A242 | 2"×1½"×.25 | 1'-1¼" | 4'-3¼" | 10 | A242 | 1.14 | 4'-9⅛" | 5 | A242 | 1.4 | 2'-4⅛" | A242 | 1.14 | 4⅛ | A242 | 1.4 | 7⅛ | — | — | — | — | — | — | — | — | - | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

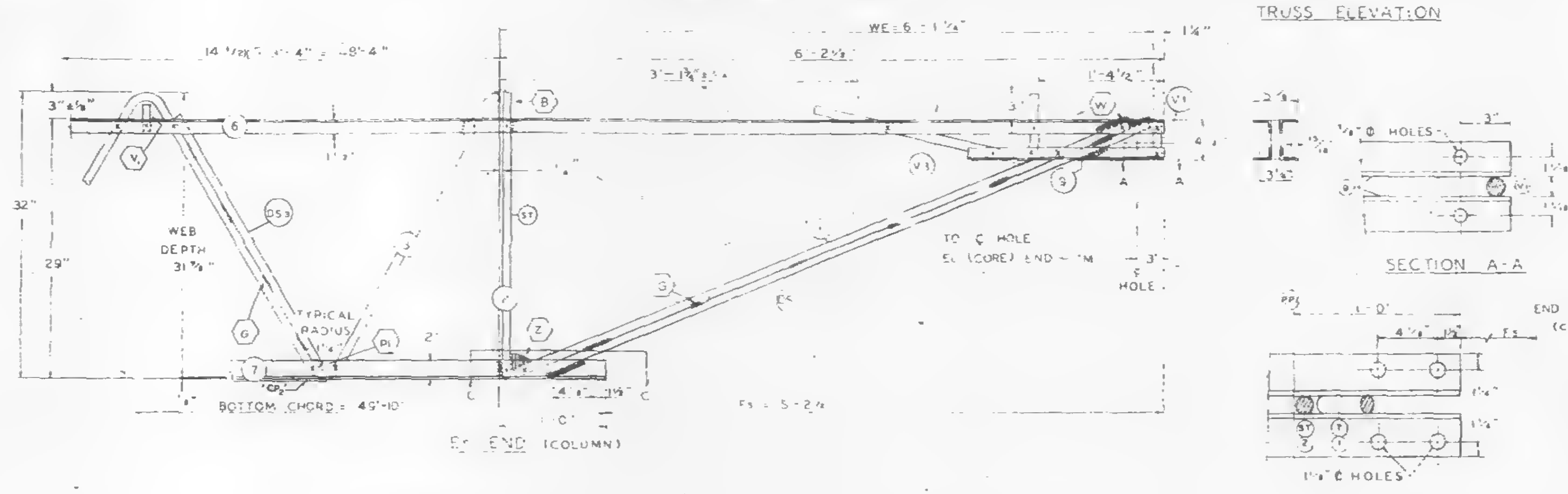
FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR PONYPD DATE 7/5/68 | DRAWN BY [illegible] DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY JB PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD DEV |
| CHECKED BY A.C. WEBER | FABRICATION CONT NO. A.T.C. 221 | SHEET NO. ST2 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14½K = 3'-4" = 48'-4"
Web splice C
WE
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
A WEB SPLICE
TOTAL CHORD PLATE LENGTH = 40'-0"
7'-2"
2'-8"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
ES END (COLUMN)
ES = 5'-2½"

TRUSS ELEVATION

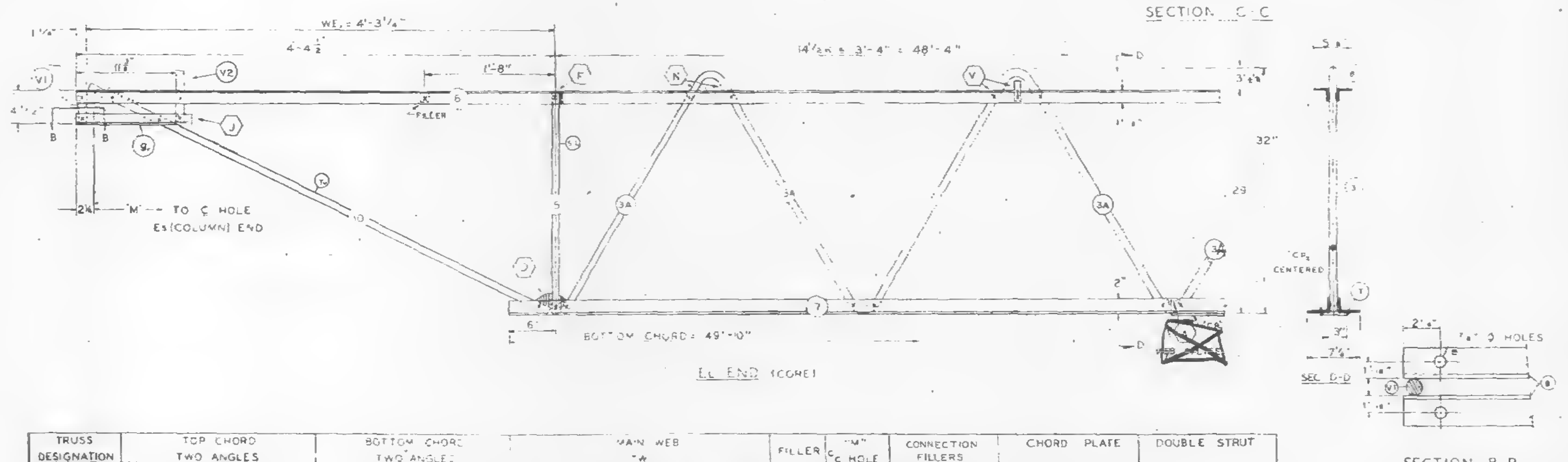
| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4 |
| OVERALL LENGTH | 58'-11" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



ALL PANEL POINTS RESISTANCE WELDED ( x
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST280.

CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 6-22-68 | GENERAL | T.M.C |

REF DRWGS
7-AB1-5 4-15-68
7-AB1-52 2-15-68
7-AB1-53 1-3-68
7-AB4-50 & 50 2 10-20-67
7-AB3-2 1-3-68
7-AB4-50 3 10-20-67

6/25/68 WCB

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY FOR PONYA DATE
DRAWN BY
DATE FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J R PAUL
DATE FEB. 24, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT NO W C 221
SHEET NO ST2068

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" C-C HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8G-5811 | 6 | A242 | 2"x1½"x.31 | 58'-11" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 77'-10⅜"<br>12'-5½" | 12½ x 3'-4" = 41'-8"<br>2 x 3'-4 = 6'-8" | 11 | 1.09 | 58'-5¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP₁ | A36 | ¼x3 | 40'-0" | DS₂ | A242 | .75 | 2'-8½" |

COLUMN END

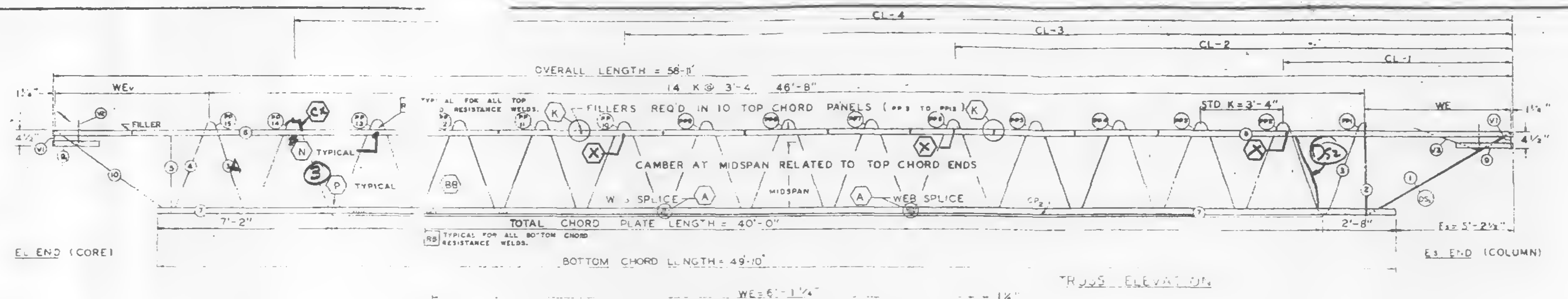
| ES END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8G-5811 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 5'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9⅛" | DS₁ | A242 | .92 | 6'-3¼" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS CL-1 | CL-2 | CL-3 | CL-4 | Fe |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 3'-2½" |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE₁ | DIAGONAL "T₁" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST₁" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "Wc" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "Wt" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T8G-5811 | 9 | A242 | 2"x1½"x.25 | 1'-1¼" | 4'-3¼" | 10 | A242 | 1.14 | 4-9½ | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4¾" | A242 | 1.14 | 7¾" | — | — | — | — | — | — | — | — | — | — | — | — | — |

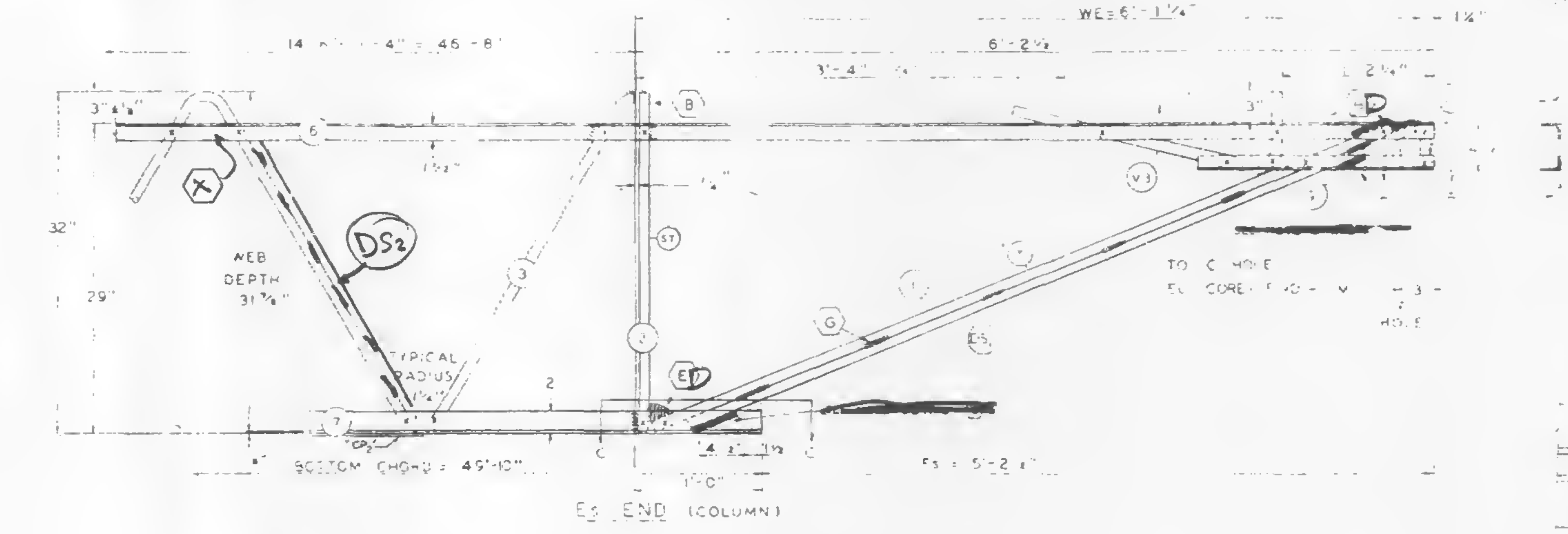

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-11"
14 K @ 3'-4" = 46'-8"
WEe
WE
FILLER
TYPICAL FOR ALL TOP RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP12)
STD K = 3'-4"
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
2'-8"
Es = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
DS2

EL END (CORE)

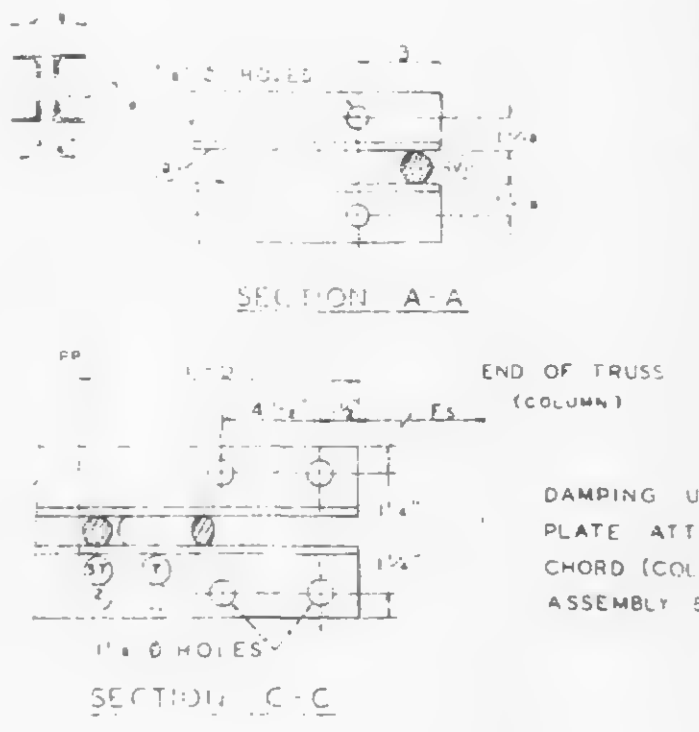
Es END (COLUMN)

TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | 58'-11" | [illegible] |
| WEB DEPTH | 31 7/8" | [illegible] |



Es END (COLUMN)

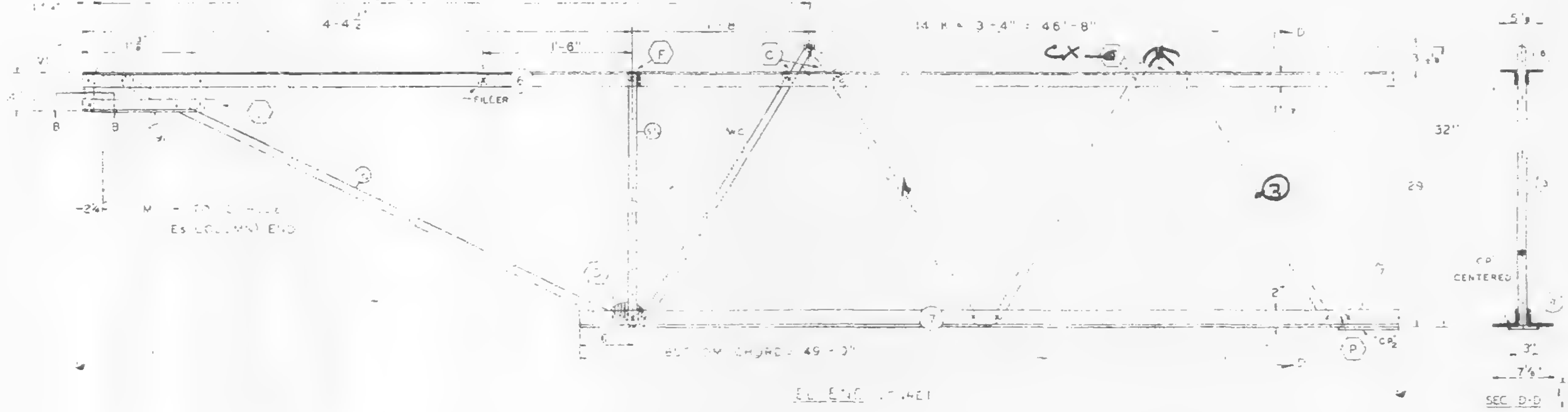


ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST280.

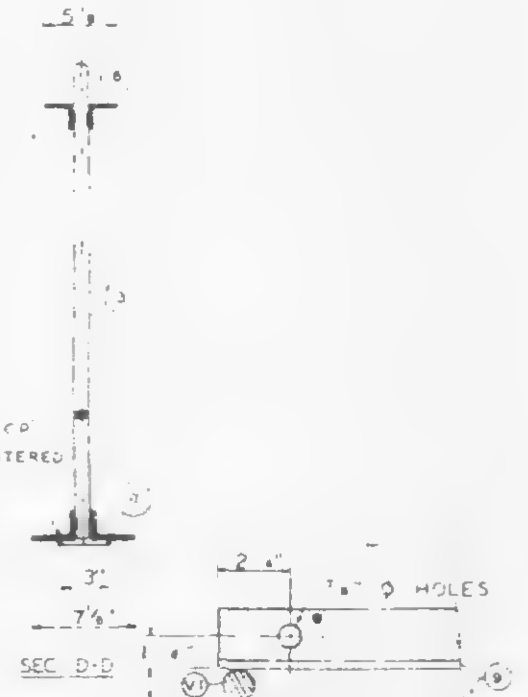
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.DD.

6/13/68 WAB



EL END (CORE)



4-15-68

REF DRWGS

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

SECTION B-B

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES |  |  |  | BOTTOM CHORD TWO ANGLES |  |  |  | MAIN WEB "W" |  |  |  |  | FILLER |  | "M" ℄ HOLE | TRUSS DATA | CHORD PLATE |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA |  |  | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8G-58'11 | 6 | A242 | 2"x[illegible] | 58'11" | 7 | A36 | 3"x2"x3[illegible] | 49'-10" | 3 | A36 | 1.09 | 87'-2½" | 14 @ 3'4" = 46'-8" | 11 | 1.09 | 58'-5¾" |  | CP2 | A36 | [illegible]x3 | 40'-0" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WE | DIAGONAL "T" STRUT |  |  |  | VERTICAL "ST" STRUT |  |  |  | END STIFFENER MK. V1 |  |  | END STIFFENER MK. V3 |  |  | DOUBLE STRUT |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
|  | C32T8G-58'11 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-7⅞" | A36 | 1.09 | 4⅜" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .75 | 6'-3⅛" |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | DS2 | A242 | .75 |  |

CHECK DIMENSION FOR TRUSS FAB.

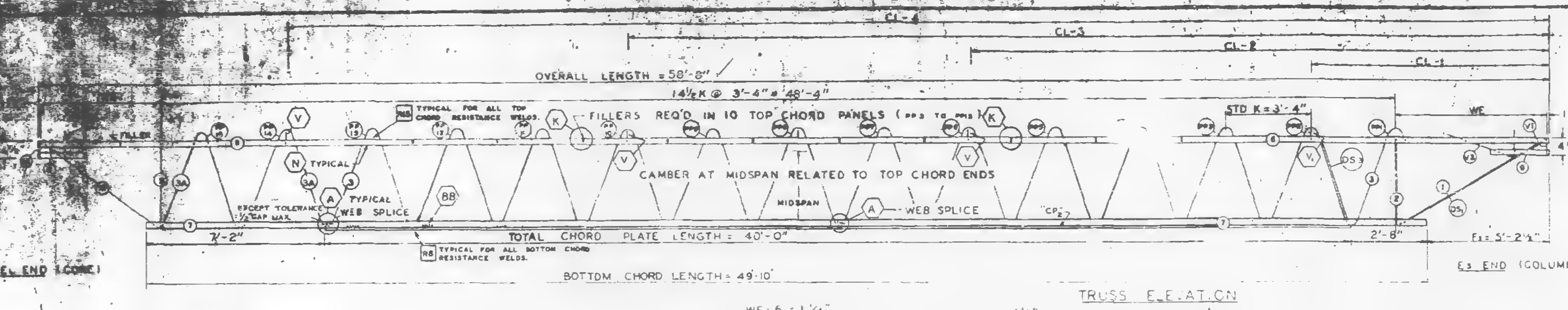
| LOCATION OF TRANS TRUSS |  |  |  |  |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-8½" | 5'-2½" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WEe | DIAGONAL "T" STRUT |  |  |  | VERTICAL "ST" STRUT |  |  |  | END [illegible]ENER MK. V1 |  |  |  |  |  | MK. V4 |  |  | WEB "WC" |  |  |  |  | WEB "WT" |  |  |  |  | WEB |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK |  | DIA. |
|  | C32T8G-58'11 | 9 | A242 | 2"x1½"x.25 | [illegible] | 5'-[illegible] | 10 | A242 | 1.14 | 4'-9½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4[illegible] | A242 | 1.14 | 7[illegible] | — | — | — | 4 | A242 | 1 | 1.14 | 3'-0½" | - | — | — | — | — | 3A | A242 | 1.14 |

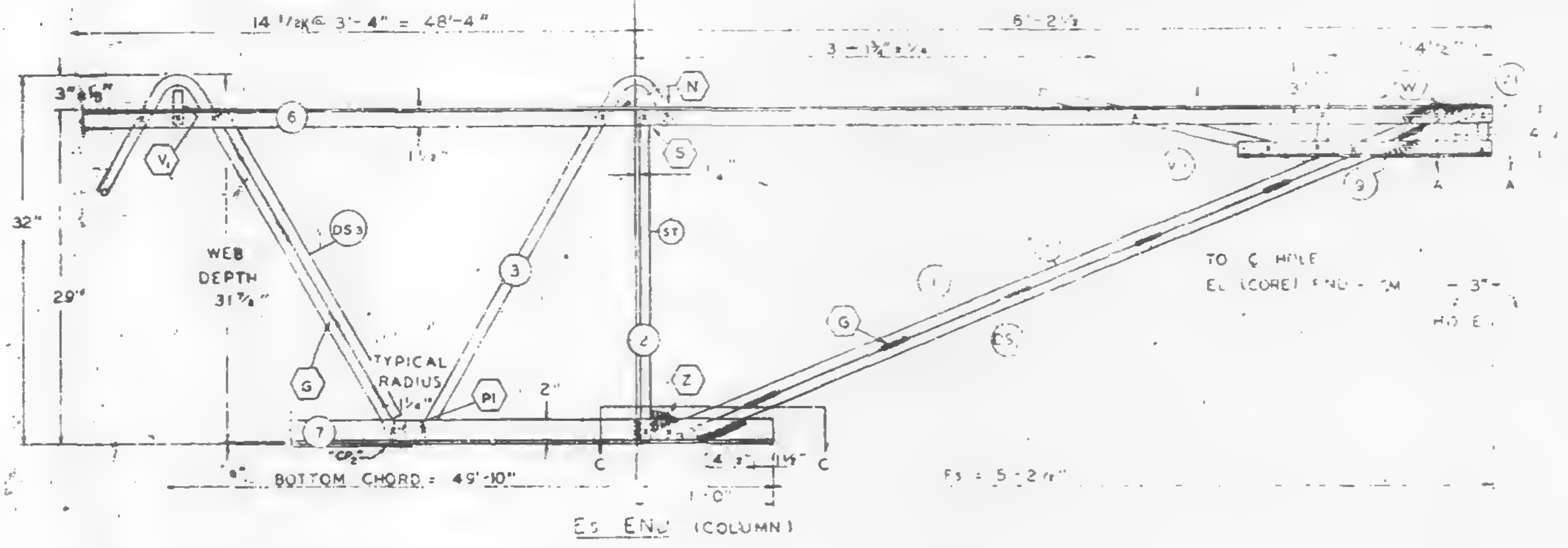
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK [illegible]

FLOOR TRUSS C32T8G 58'-11" OVERALL
WORLD TRADE CENTER TOWER A-B

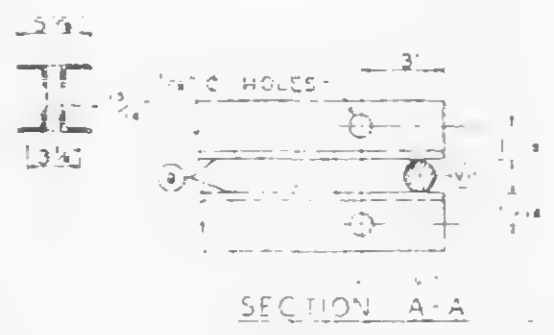
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION DATE BY FOR PONYA
DATE FEB 24, 1968
APPROVED FOR FABRICATION DATE BY FOR FABRICATOR
DATE FEB 24, 1968


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-8"
14½K @ 3'-4" = 48'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
EXCEPT TOLERANCE 1/16" GAP MAX.
WEB SPLICE
MIDSPAN
WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
El END (CORE)
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)

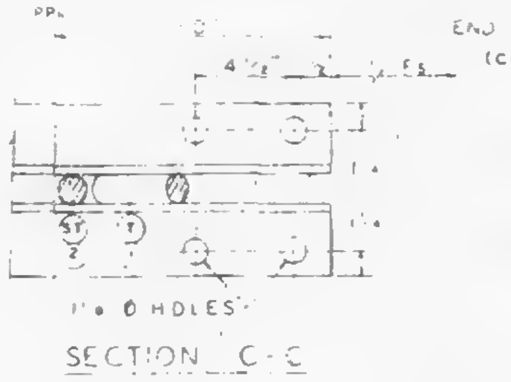
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



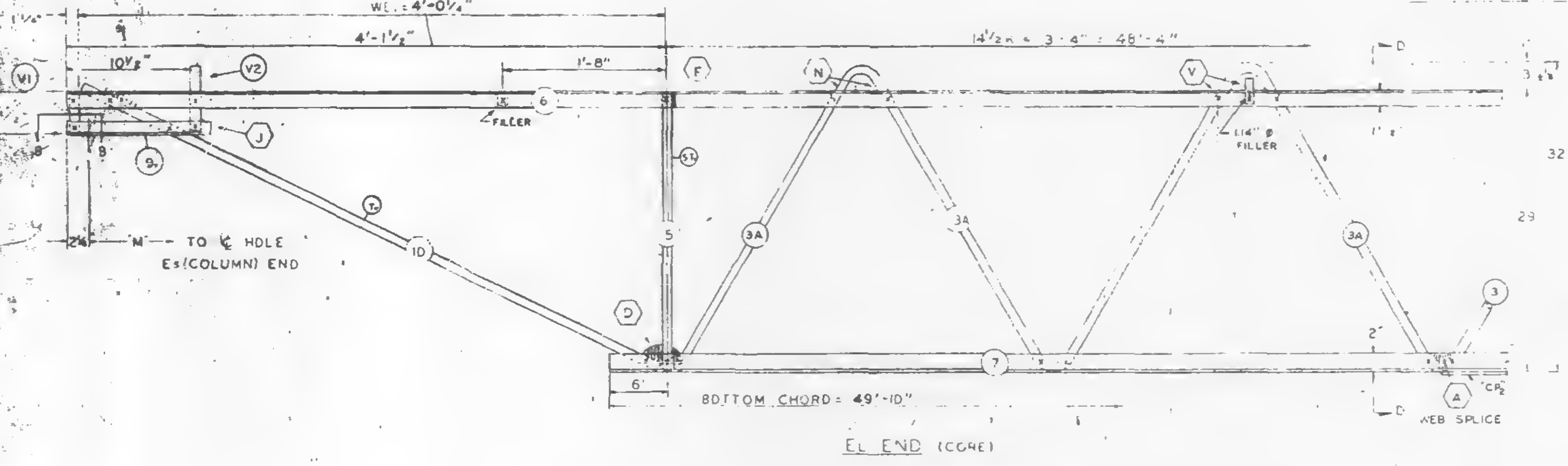
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292,
AND ST280.

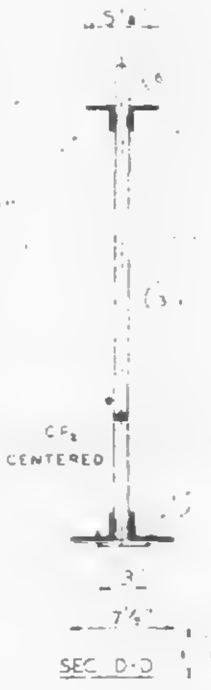
CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

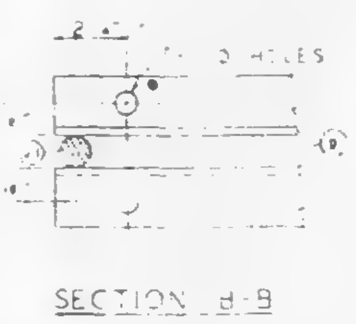
| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



El END (CORE)



SEC D-D



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB-52 | 2-15-68 |
| 7-AB-53 | 7-22-68 |
| 7-AB4 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-26-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| TRUSS DESIGNATION | | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C321[illegible] | 588 | 6 | A242 | 2"x1½"x.3½ | 58'-8" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 7'8"-3¾<br>12.5"2" | 12½@ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 58'-2¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼x3 | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

COLUMN END

| Es END | TRUSS DESIGNATION | | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8H | 588 | 9 | A242 | 2"x1½"x.28 | 2'-3" | [illegible] | 1 | A36 | 1.09 | [illegible] | 2 | A36 | 1.09 | 2'-4⅛" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | [illegible]-2½" |

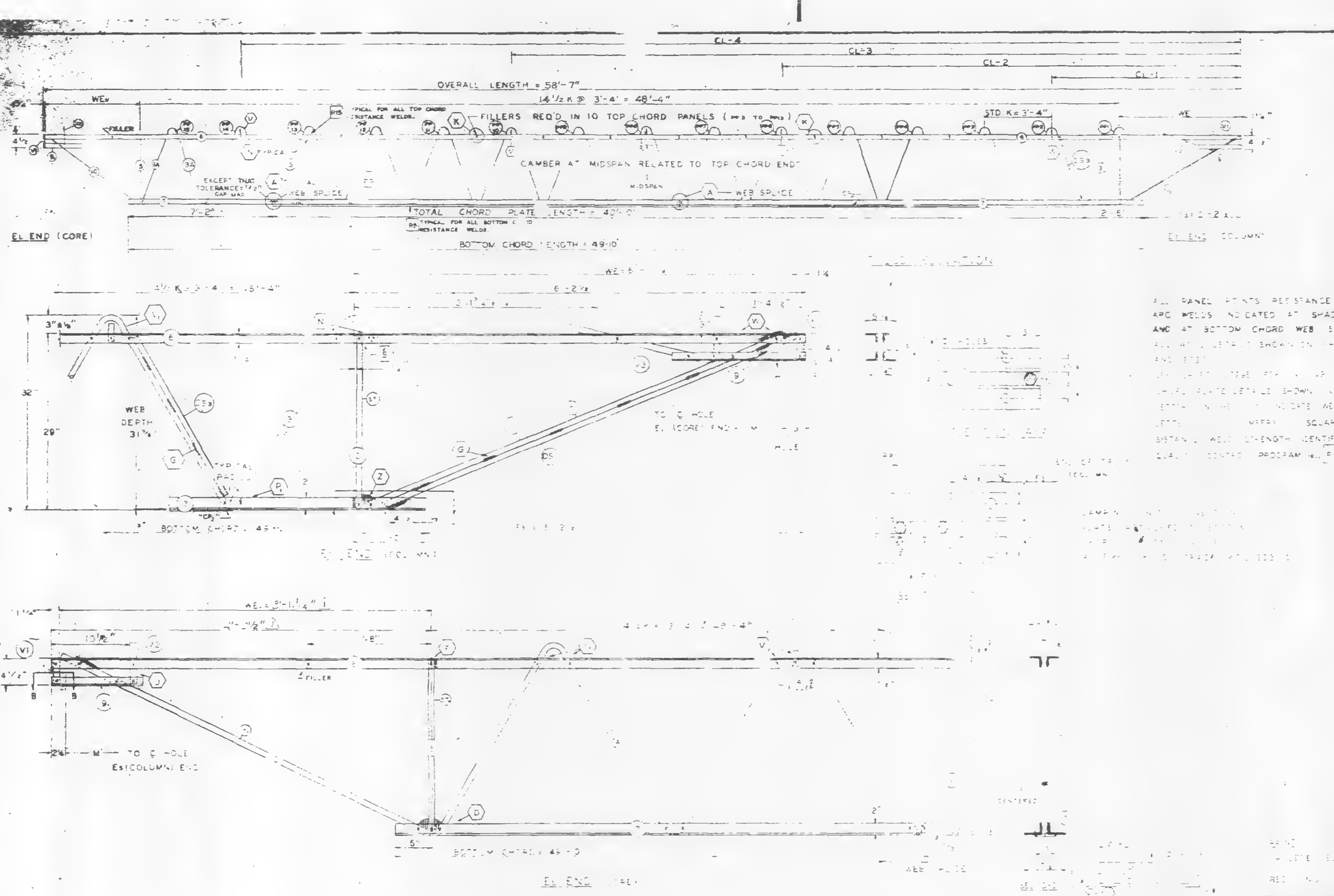
| TRUSS DESIGNATION | | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T8H | 588 | 8 | A242 | 2"x1½"x.25 | 1'-0¼" | 4'-0¼" | 10 | A242 | 1.14 | 4'-7" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
[illegible] TRADE CENTER - N.Y.C.
FOR
[illegible] OF NEW YORK AUTHORITY

[illegible] TRUSS C32T8H 58'-8" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON ILLINOIS | | DESIGN DRAWING NO 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White | DATE 4/25/69 | DRAWN BY [illegible]<br>DATE APRIL 15, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATION | DATE | CHECKED BY T.M.CHURA<br>DATE APRIL 15, 1969 | IN CHARGE OF PROD DEV |
| DETAILED BY [illegible] | | FABRICATION CONT NO [illegible] 221 | SHEET NO ST2[illegible] |



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293
AND ST[illegible]
[illegible] DETAILS
[illegible] PLATE DETAILS SHOWN ON SHEET ST280
[illegible] INDICATE WELD DETAIL
[illegible] SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 2" | ± [illegible]" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | 1/4" |
| OVERALL LENGTH | 58'-[illegible] | ± 3/8" |
| WEB DEPTH | 31 7/8 | ± 1/4" |

| NO | DATE | REVISION | T.M.C |
|---|---|---|---|
| 1 | 2-2-69 | WE₃ DIMENSION | BY |

| REF DRWGS | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-53 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-503 | 10-20-67 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER ℄ M HOLE | | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8J-587 | 6 | A242 | 2"x1½"x 3 | 58'-7" | [illegible] | A36 | 3 x 2" x 35 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 7'-3¾"<br>12'-5½" | [illegible] | 1 | 1.09 | 58'-9¾ | [illegible] | [illegible] | CP | A36 | [illegible] | 40'-0" | DS3 | [illegible] | [illegible] | 2'-8½ |

COLUMN END

| ES END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8J-587 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6"-1¼" | [illegible] | A36 | 1.09 | 6'-3⅛" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A[illegible] | [illegible] | 2'-9⅛" | DS | A242 | .93 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | ES |
| 9'-6 ½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

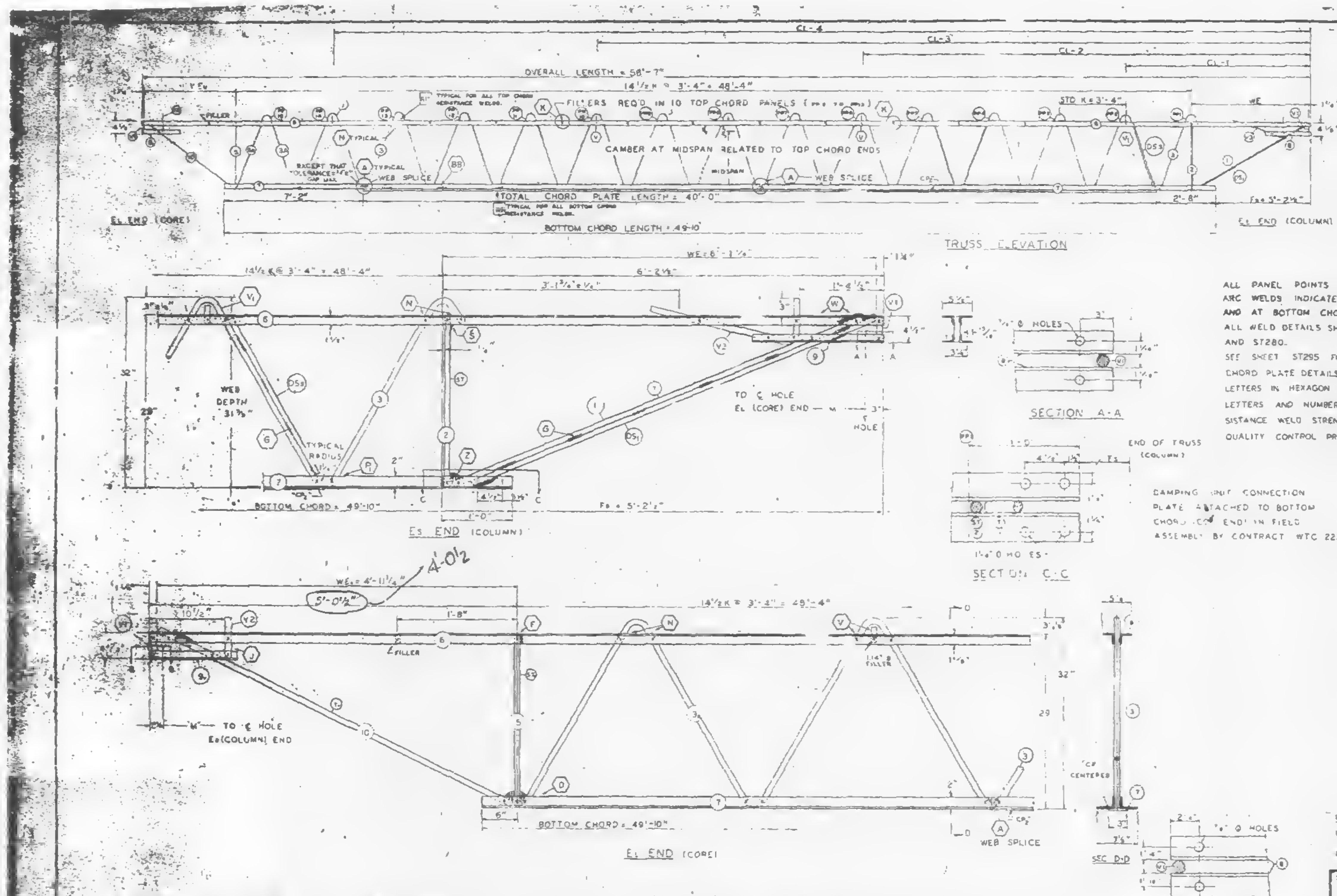
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE₃ | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | 1 | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8J-587 | [illegible] | A242 | 2"x1½"x.25 | 1'-0½" | 3'-[illegible] | 10 | A242 | 1.14 | 4'-6⅛" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | A242 | 1.14 | [illegible] | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER — N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

TRUSS DETAIL C32T8J 58'-7" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABR. DATED
AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-5 7-AB3-2 PLATE
APPROVED FOR FABRICATION DATE
BY [illegible] FOR P.O.N.Y.A. 2/28/69
DRAWN BY [illegible]
DATE JAN. 7, 1969
APPROVED FOR FABRICATION DATE
BY FOR FABRICATOR
LACLEDE STEEL CO
CHECKED BY T.M.CHURA
DATE JAN. 7, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT NO
W.T.C. 221
SHEET NO



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCES |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | + 3/8" |
| DESIGN DEPTH | 30" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/8" |
| OVERALL LENGTH | 58'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (K)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICE (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293 AND ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | MK | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8J-587 | 6 | A242 | 2"×1½"×.31 | 58'-7" | 7 | A36 | 3"×2"×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible] | [illegible] | 11 | 1.09 | 58'-9¾" | 3<br>1 | 1.09<br>1.14 | 3" | CP | A36 | [illegible] | 4'-0" | DS | A242 | .75 | 7'-6¾" |

COLUMN END

| E2 END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8J-587 | 9 | A242 | 2"×1½"×.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4¼" | A36 | 1.09 | 2'-9¼" | DS | A242 | .92 | 6'-3¼" |

CORE END

| E1 END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | MK V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| [illegible] | [illegible] | 8 | A242 | 2"×1½"×.25 | 1'-0¼" | 5'-0½" | 10 | A242 | 1.14 | 4'-6⅛" | 5 | A242 | 1.14 | 2'-4½" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | — | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | F2 |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON
Structural & Civil Engineers
SK

| NO | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-ABI-5 | 10-15-66 |
| 7-ABI-32<br>7-ABI-33 | 2-15-66<br>7-22-66 |
| 7-A8A-50 | 6-1-66 |
| 7-A83-2 | 1-3-68 |
| 7-A86-50.5 | 10-20-67 |

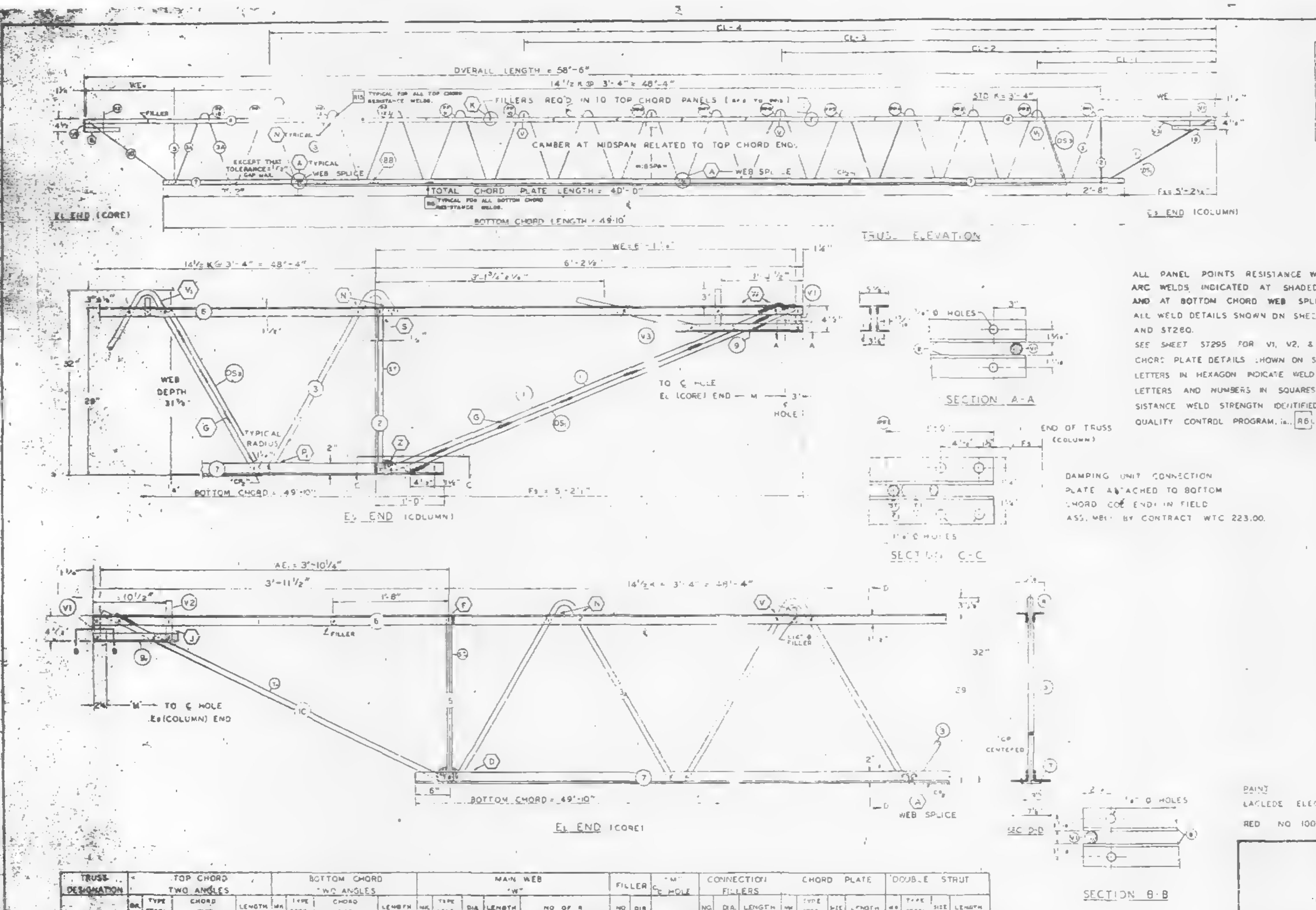
PAINT
LACLEDE ELECTROCOAT
RED NO 1000

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8J 58'-7" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-ABI-5, 7-ABI-7 PLATE | |
| APPROVED FOR FABRICATION BY FOR PONYA | DATE | DRAWN BY [illegible] DATE JAN 7, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.R.CHUBA DATE JAN 7, 1968 | IN CHARGE OF PROD DEV |
| DETAILED BY A.C. WEBER | | FABRICATION CONT NO WTC 221 | SHEET NO ST208 |



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICE
ALL WELD DETAILS SHOWN ON SHEET ST290, ST2[illegible] ...ST293
AND ST280.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
CHORD PLATE DETAILS SHOWN ON SHEET ST280.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "P" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-6" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/8" |

| NO | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| T-ABI-5 | 10-10-68 |
| T-ABI-52 | 2-15-68 |
| T-ABI-53 | 7-22-68 |
| T-AB4-30 | 8-1-68 |
| T-ABB-2 | 1-1-68 |
| T-ABA-30S | 10-30-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF R | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T8K-586 | 6 | A242 | 2"×1½"×.31 | 58'-6" | 7 | A36 | 3"×2"×.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible] | [illegible] | 11 | 1.09 | 58'-0¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | C9 | A36 | [illegible] | 40'-0" | DS | A242 | .75 | 2'-6¾" |

| COLUMN END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8K-586 | 9 | A242 | 2"×1½"×.25 | 2'-3" | 6'-1½" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅞" | A36 | 1.09 | 2'-9" | DS | A242 | .92 | 6'-3¼" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10" | 35'-2½" | 49'-6½" | 5'-2" |

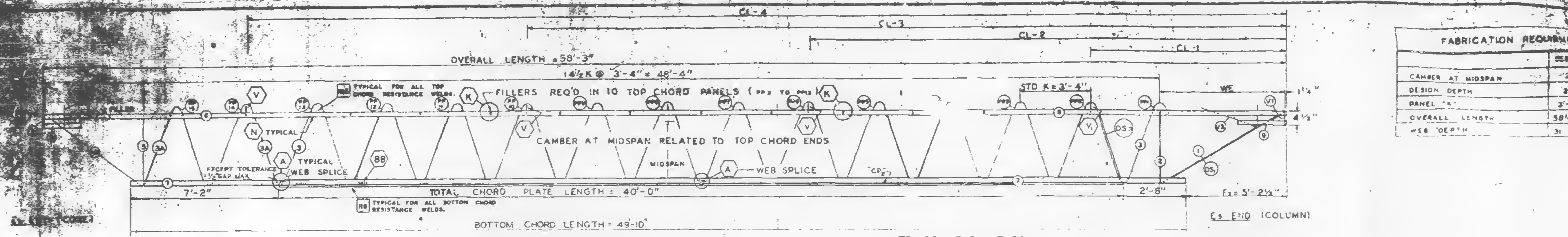
| TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V3 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| [illegible]-586 | [illegible] | A242 | 2"×1½"×.25 | 1'-0½" | 3'-10" | 10 | A242 | 1.14 | 4'-5¼" | 3 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

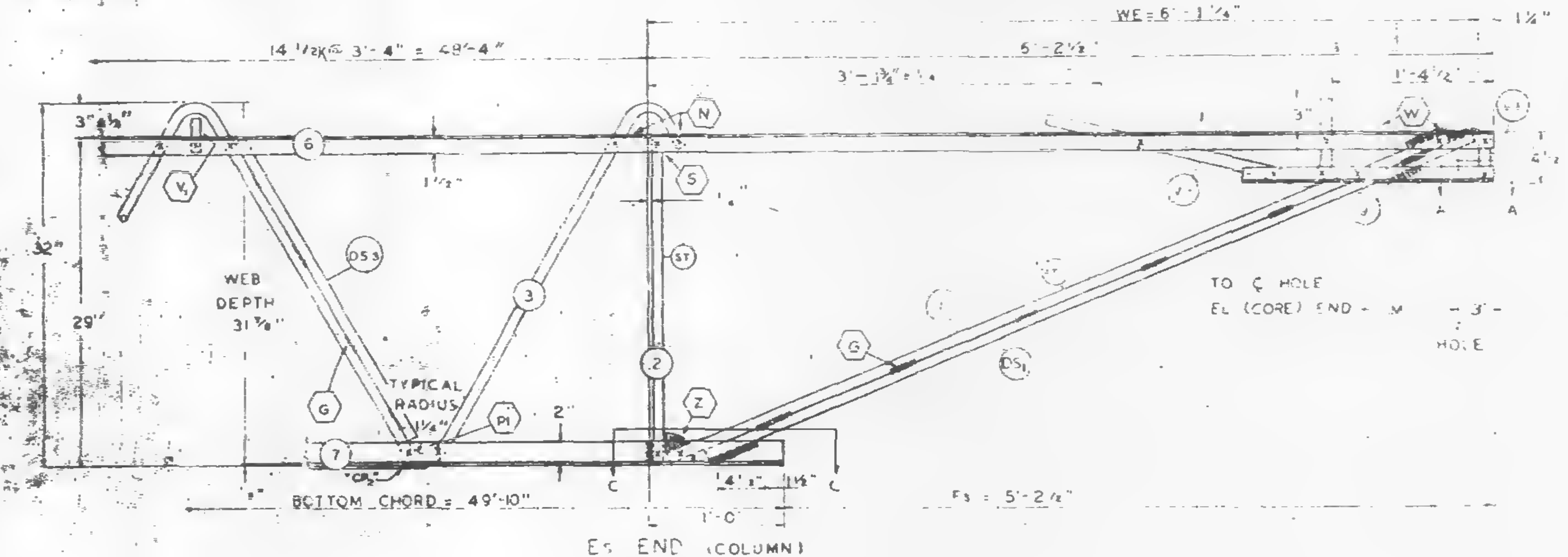
FLOOR TRUSS C32T8K 58'-6" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

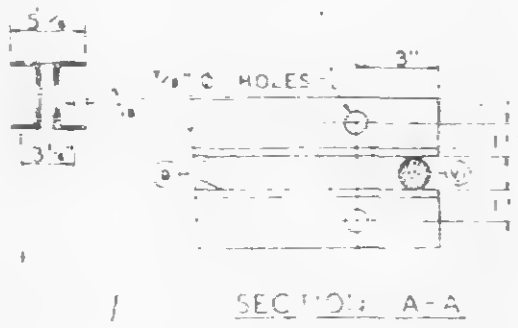
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO T-ABI-5 T-AB3-2 PLATE | |
| APPROVED FOR FABRICATION BY J. W. White FOR P.O.N.Y.A. | DATE 1/29/69 | DRAWN BY LL DATE JAN 7, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA DATE JAN 7 1968 | IN CHARGE OF PROD. DEV. |
| CHECKED BY A.G. WEMA | | FABRICATION CONT NO WTC 221.-.3 | SHEET NO ST2[illegible] |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-3"
14½K @ 3'-4" = 48'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
WE
1¼"
4½"
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
EXCEPT TOLERANCE ½" GAP MAX.
TYPICAL WEB SPLICE
MIDSPAN
WEB SPLICE
CP2
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2¼"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
Es END (COLUMN)
EL END (CORE)

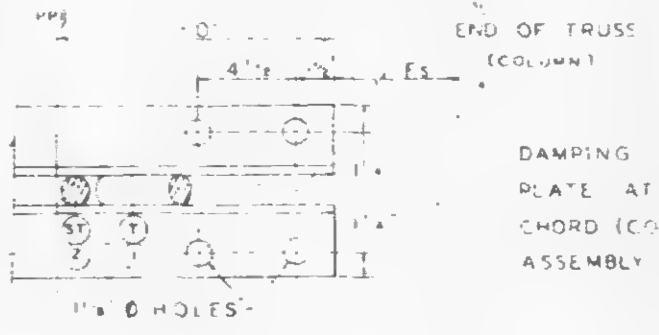
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A

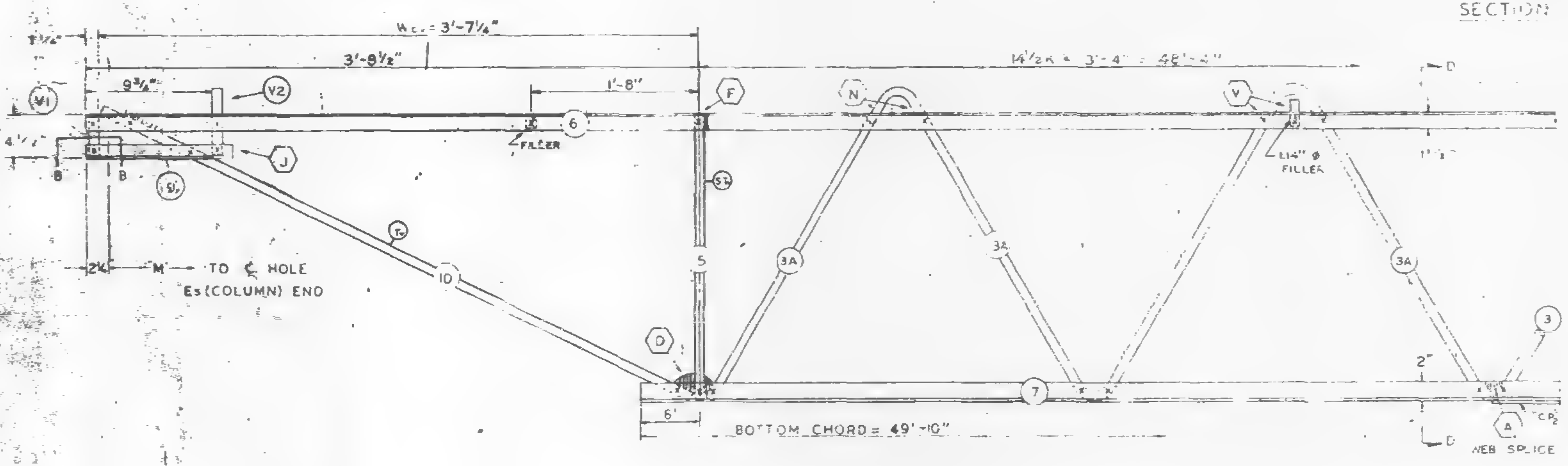


SECTION C-C

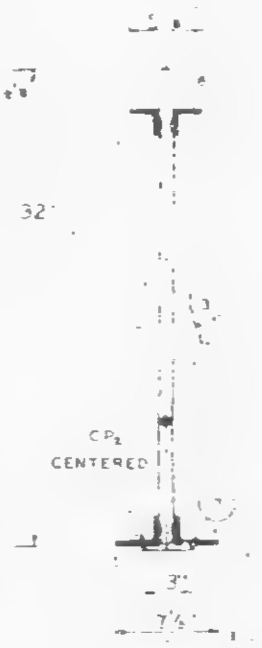
ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292.
AND ST221

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

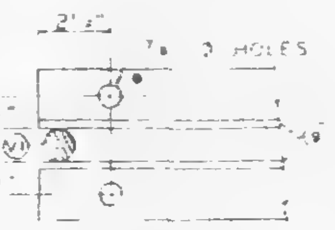
DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00



EL END (CORE)



SEC. D-D



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | [illegible] |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4 | 8-1-68 |
| 7-AB3 2 | 1-3-68 |
| 7-AB4-50 5 | 10-28-67 |

PAINT
LACLEDE ELECTR COAT
RED NO .0001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄-℄ HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8M 583 | 6 | A242 | 2"x1½"x.31 | 58'-3" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 7'8"-3¾"<br>12'-5½" | 12½@3'-4" = 41'-8"<br>2@3'-4" = 6'-8" | 11 | 1.09 | 57'-9¾" | 3<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼x3 | 40'-0" | DS3 | A242 | .75 | 2'-6¾" |

| COLUMN END | Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | 32T8M 583 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 5'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅝" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9⅛" | DS1 | A242 | .92 | 6'-3⅛" |

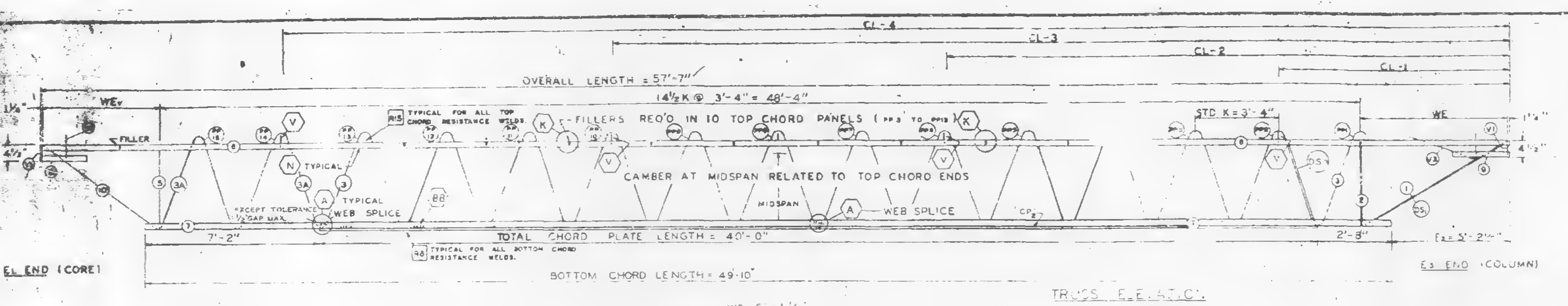
| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2¼" |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. [illegible] | | | END STIFFENER MK. V3 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T8M 583 | [illegible] | A242 | [illegible]x.25 | 1'-0" | 3'-7½" | [illegible] | A242 | 1.14 | 4'-2¾" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | [illegible] | A242 | [illegible] | [illegible] | — | — | — | — | — | — | — | — | — | — | — | — | — |

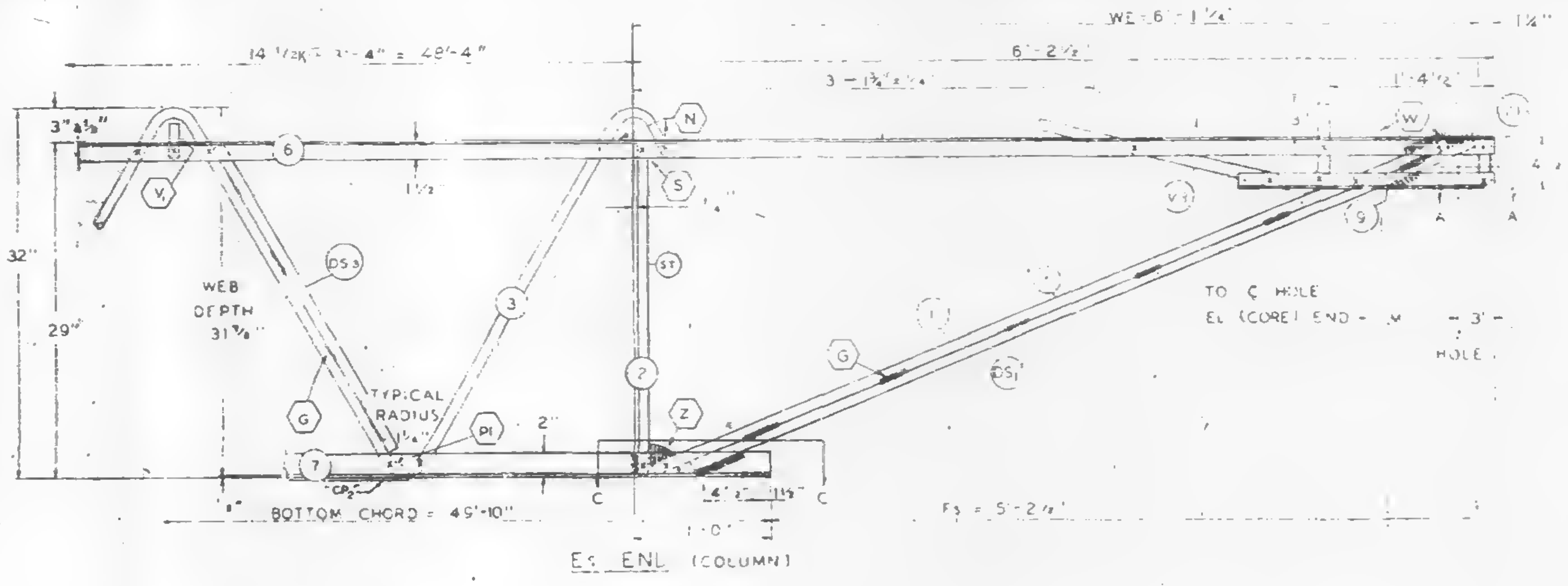
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8M 58'-3" OVERALL
WORLD TRADE CENTER TOWER A-B

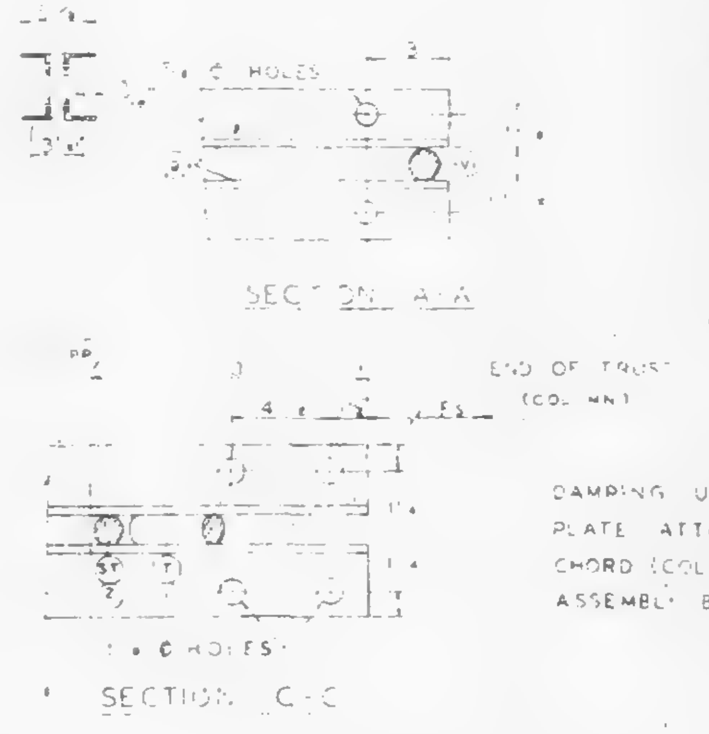
| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON ILLINOIS | | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION FOR PONYA James White | DATE 4/25/69 | DRAWN BY [illegible]<br>DATE APRIL 15, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY TM. CHURA<br>DATE APRIL 15, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO. | | FABRICATION CONT. NO. WTC 221 | SHEET ST[illegible] |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-7"
14½K @ 3'-4" = 48'-4"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS.
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
N TYPICAL
A TYPICAL WEB SPLICE
EXCEPT TOLERANCE ½" GAP MAX.
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
A WEB SPLICE
7'-2"
TOTAL CHORD PLATE LENGTH = 40'-0"
2'-8"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION



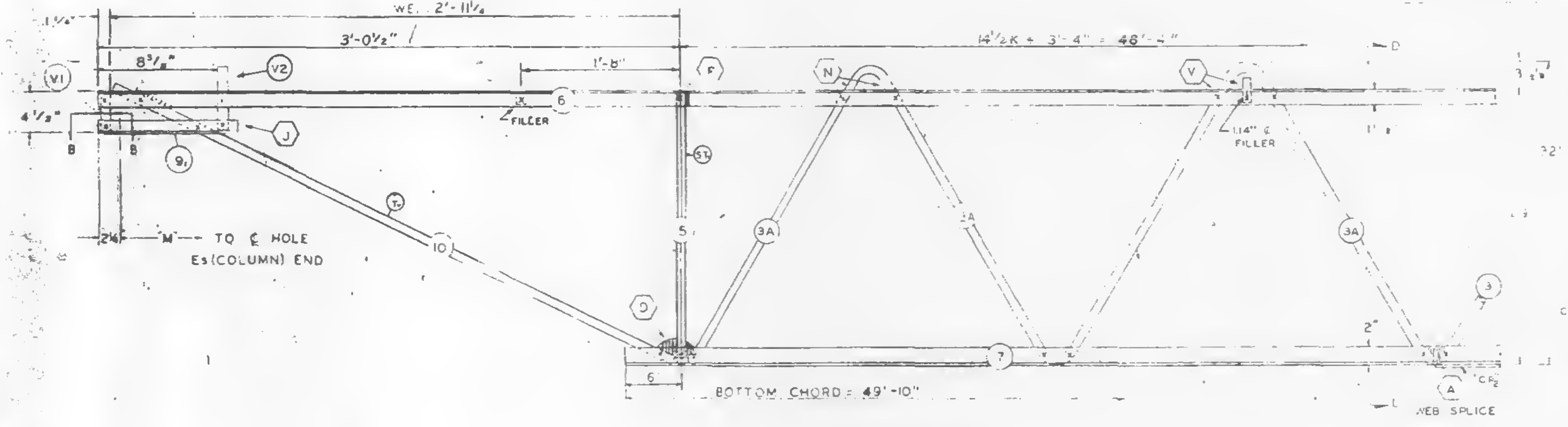
Es END (COLUMN)



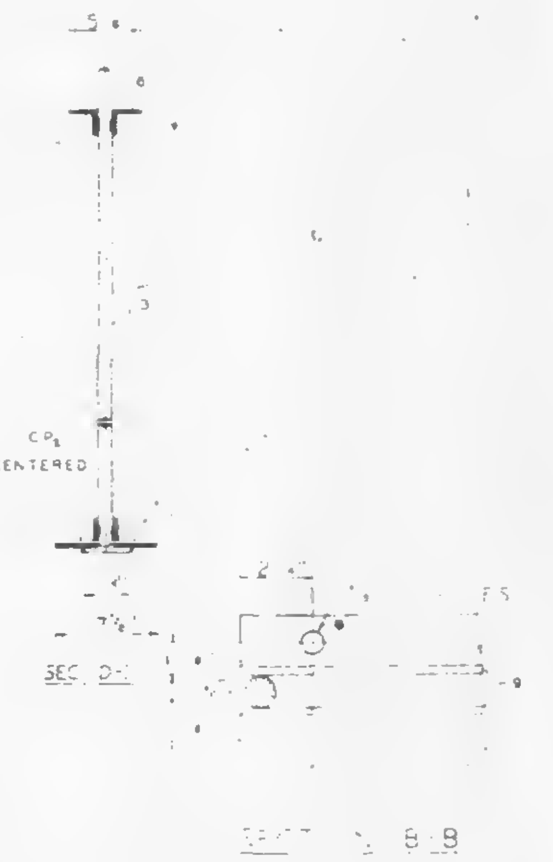
ALL PANEL POINTS RESISTANCE WELDED & ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD-WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, AND ST28.

CHORD PLATE DETAILS SHOWN ON SHEET ST280
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, e.g. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, e.g. R5.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00



EL END (CORE)



## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL [illegible] | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-5 | 10-15-68 |
| 7-AB-52 | 7-15-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-503 | 10-28-67 |

PAINT
LACLEDE ELECTRO COAT
RED NO. 1000

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T8P 77 | 6 | A242 | 2"x1½"x.31 | 57'-7" | 7 | A36 | 3"x2"x.33 | 49'-10" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 79"-3¾"<br>12'-5½" | 12½ @ 3'-4" = 41'-8"<br>2 @ 3'-4" = 6'-8" | 11 | 1.09 | 57'-1¾" | 2<br>1 | 1.09<br>1.14 | 3"<br>3" | CP2 | A36 | ¼x3 | 40'-0" | DS1 | A242 | .35 | 2'-6¾" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T8P 577 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A36 | 1.09 | 6'-3¼" | 2 | A36 | 1.09 | 2'-4⅞" | A36 | 1.09 | 4⅝" | A36 | 1.09 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

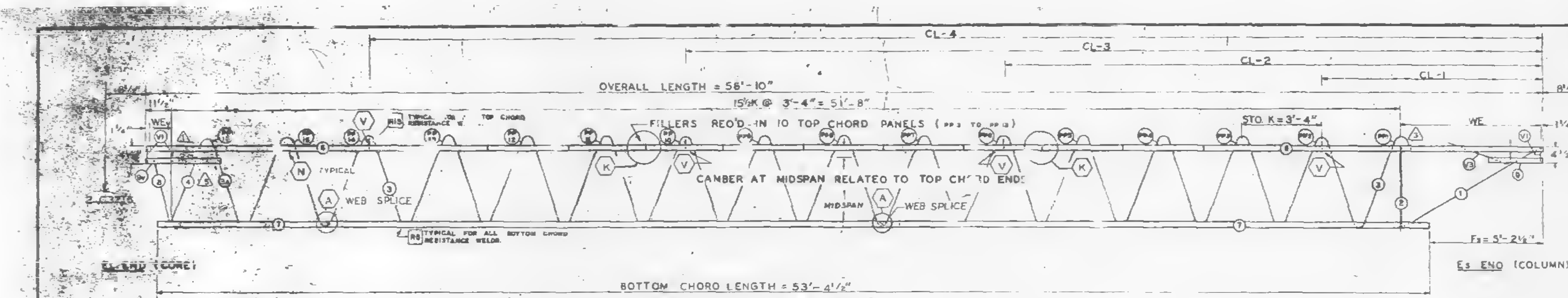
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | WEB "Wt" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T8P 577 | 9 | A242 | 2"x1½"x.25 | 10¼" | 4'-7" | 10 | A242 | 1.14 | 3'-8½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4" | A242 | 1.14 | 7" | — | — | — | — | — | — | — | — | | — | — | — | — |

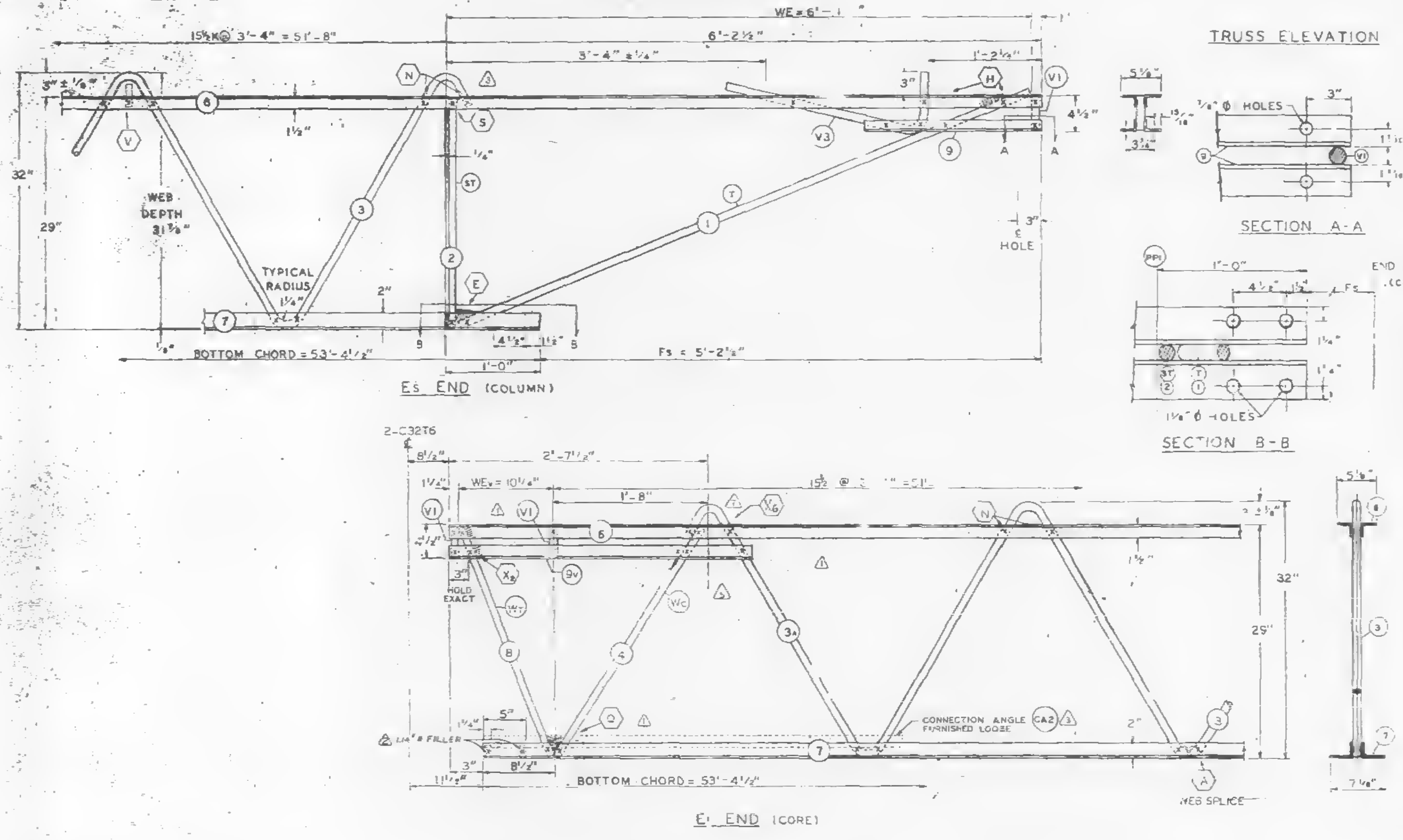
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T8P 57'-7" OVERALL
WORLD TRADE CENTER TOWER A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-5 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White | DATE 4/25/69 | DRAWN BY [illegible] DATE APRIL 15, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA DATE APRIL 15, 1969 | IN CHARGE OF PROD. DEV. |
| STARTED [illegible] A.C. WEBER | | FABRICATION CONT. NO. 221 | SHEET NO. ST208P |





ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICAT[illegible] SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS [illegible] ON SHEETS ST290, ST291
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00

| FABRICATIO[illegible]ENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | [illegible] |
| DESIGN DEPTH | 29" | [illegible] 4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 | [illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 7 | 5-13-70 | AS NOTED | G.D. |
| 6 | 5-8-70 | AS NOTED | G.D.C. |
| 5 | 5-1-70 | AS NOTED | G.D.C. |
| 4 | 12-9-68 | MAIN WEB LENGTH. | G.D.C. |
| 3 | 11-19-68 | AS NOTED | G.D. |
| 2 | 8-30-68 | BOTTOM CHORD FILLER | T.M. |
| 1 | 7-1-68 | AS NOTED | T.M. |

3 REF. DRWG.

| | |
|---|---|
| 7-A81-7 | 7-22-65 |
| 7-A81-52 | 2-15-6 |
| 7-A84-50 | 8-1-6 |
| 7-A83-2 | 1-3-6 |
| 7-A84-50,5 | 10-20-6 |
| 7-A81-53 | 10-15-6 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" 5 | | | | | FILLER 2 | | "M" C/C HOLES | CONNECTION FILLER | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO OF K | NO | DIA. | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T9-5810 | 6 | A242 | 2"x1½"x.31" | 58'-10" | 7 | A36 | 3"x2"x.33" | 53'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 54'-6½"<br>[illegible] | 13½K × 3'-4" = 45'-0"<br>1½K × 3'-4" = 5'-0" | 17<br>2 | 1.09<br>1.14 | — | 4 | 1.09 | 3" | — | — | — | — |

| COLUMN END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT 3 | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Es END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T9-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | 1.14" | 6'-5" | 2 | A36 | 1.09" | 2'-4⅛" | A242 | 1.14" | 4⅝" | A242 | 1.14" | 2'-9⅛" | — | — | — | — |

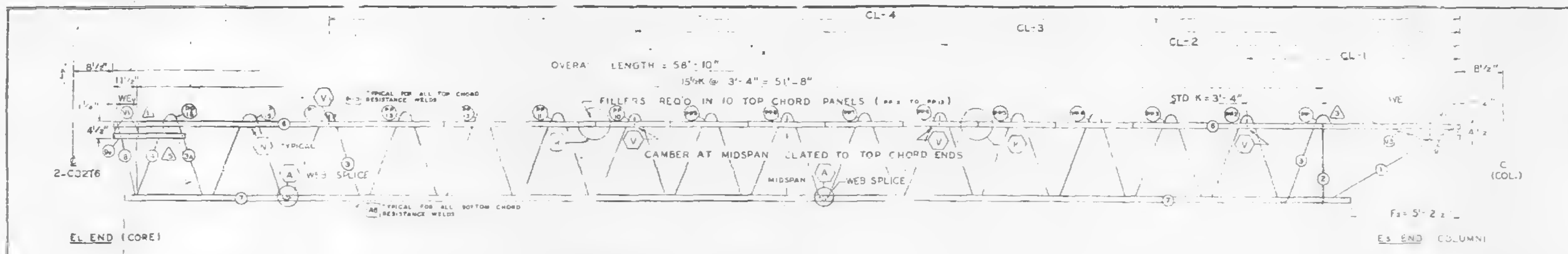
| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" 5 | | | | | WEB "WT" | | | | | CONNECTION ANGLES (FURNISHED LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH | NO. | 3 MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| [illegible]-5810 | 9v | A242 | 2"x1½"x.31" | 3'-2" | 10¼" | — | — | — | — | — | — | — | — | A242 | 1.14" | 4⅝" | — | — | — | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | 8 | A242 | [illegible] | 1.14" | 2'-5¾" | 2 | CA2 | A242 | 2"x1½"x.37" | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

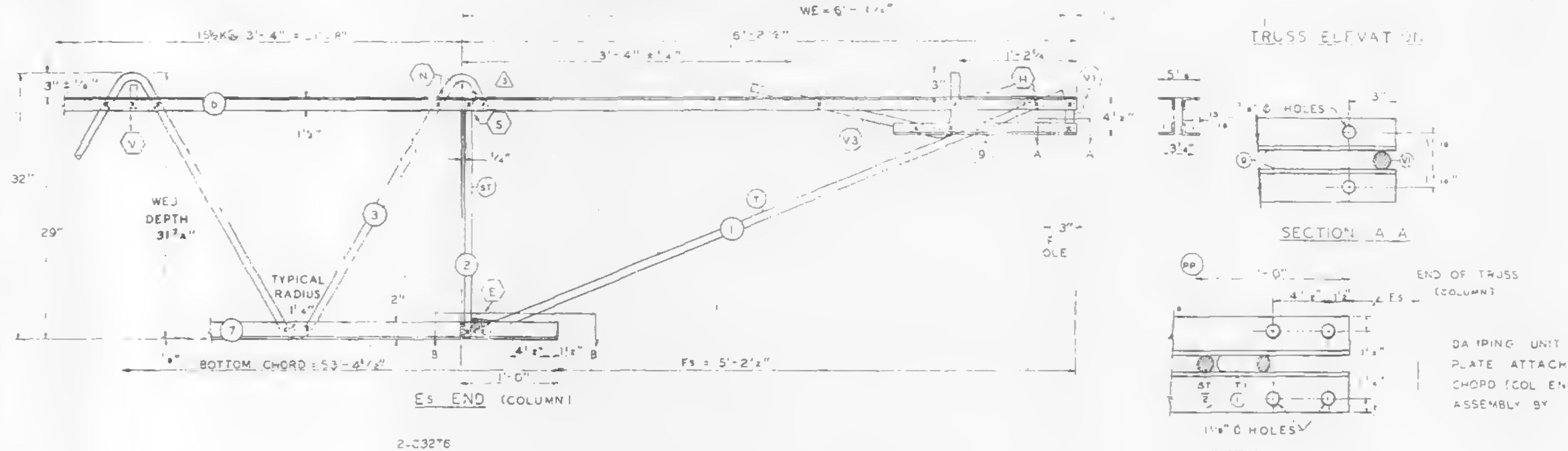
FLOOR TRUSS C32T9 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A81-7 7-A83-2 PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A DATE 5/19/70
DRAWN BY: [illegible] DATE: MAY 27, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE.
CHECKED BY: [illegible] DATE: MAY 27, 1968
IN CHARGE OF [illegible]
DETAILED BY: A.C. WEBER
FABRICA[illegible] W.T.[illegible]
SHEET NO. [illegible]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
15½K @ 3'-4" = 51'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
V3 TYPICAL
WEB SPLICE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2-C32T6
C (COL.)
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

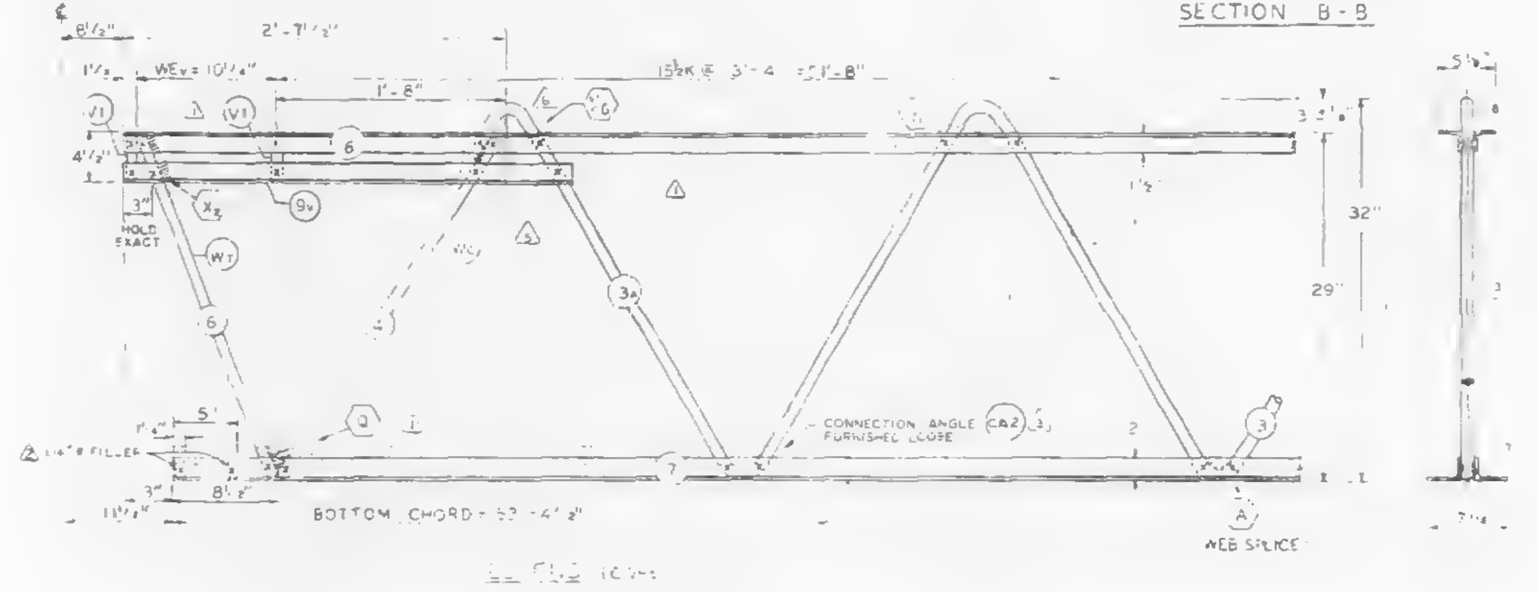
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'- | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31⅞" | ± 1/4" |

BOTTOM CHORD LENGTH = 53'-4½"
WE = 6'-1¼"



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED
AND AT BOTTOM CHORD WEB SPLICE
ALL [illegible] ST291
AND [illegible]2.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY [illegible]



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 5 | 5-[illegible] | AS NOTED | G.D.C. |
| 4 | 12-9-68 | MAIN WEB LENGTH | G.D.C. |
| 3 | 11-19-68 | AS NOTED | G.D.C. |
| 2 | 8-30-68 | BOTTOM CHORD FILLER | T.M.C. |
| 1 | 7-1-68 | AS NOTED | T.M. |

3 SEE DRWG.
7-A8[illegible] 7-22-[illegible]
7-A8 [illegible] 2-15-[illegible]
7-A8 [illegible] 8-1-68
7-A8 [illegible] [illegible]
7-A8 4 53.5 10-[illegible]
7-A8 153 10-[illegible]

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" C. HOLES | CONNECTION FILLER NO. | DIA. | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T9-5810 | 6 | A242 | 2"x1½"x.31" | 58'-10" | 7 | A36 | 3 x 2 x .33 | 53'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 4'-6½"<br>[illegible] | 13½K x 3'-4" = 45'-0"<br>1½K x 3'-4" = 5'-0" | 13<br>2 | 1.09<br>1.14 | — | 4 | 1.09 | 3" | — | — | — | — |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T9-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 5'-1¼" | 1 | A242 | 1.14" | 6'-5" | 2 | A36 | 1.09" | 2'-4⅞" | A242 | 1.14" | 4⅜" | A242 | 1.14" | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-5½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

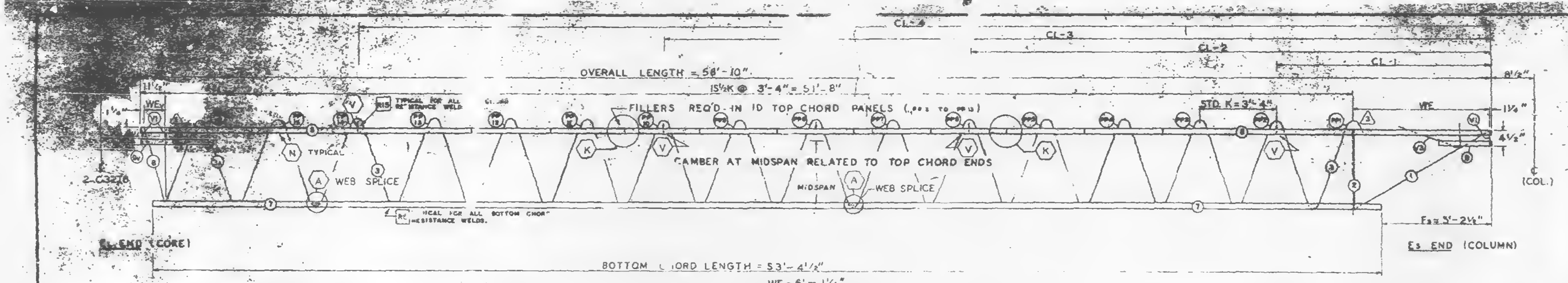
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WEv | VERTICAL "STv" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH (2 REQ'D) | V2 TYPE STEEL | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | WEB "Wc" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK | TYPE STEEL | PCS | DIA | LENGTH | CONNECTION ANGLES (FURNISHED LOOSE) NO. | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T9-5810 | 9V | A242 | 2"x1½"x.31" | 3'-2" | 10¼" | — | — | — | — | — | — | — | — | A242 | 1.14" | 4⅜" | — | — | — | — | — | 4 | A242 | 1 | 1.14 | 2'-10" | 8 | A242 | 1 | 1.14" | 2'-5¾" | 2 | CA2 | A242 | 2" x 1½" x .37" | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T. 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

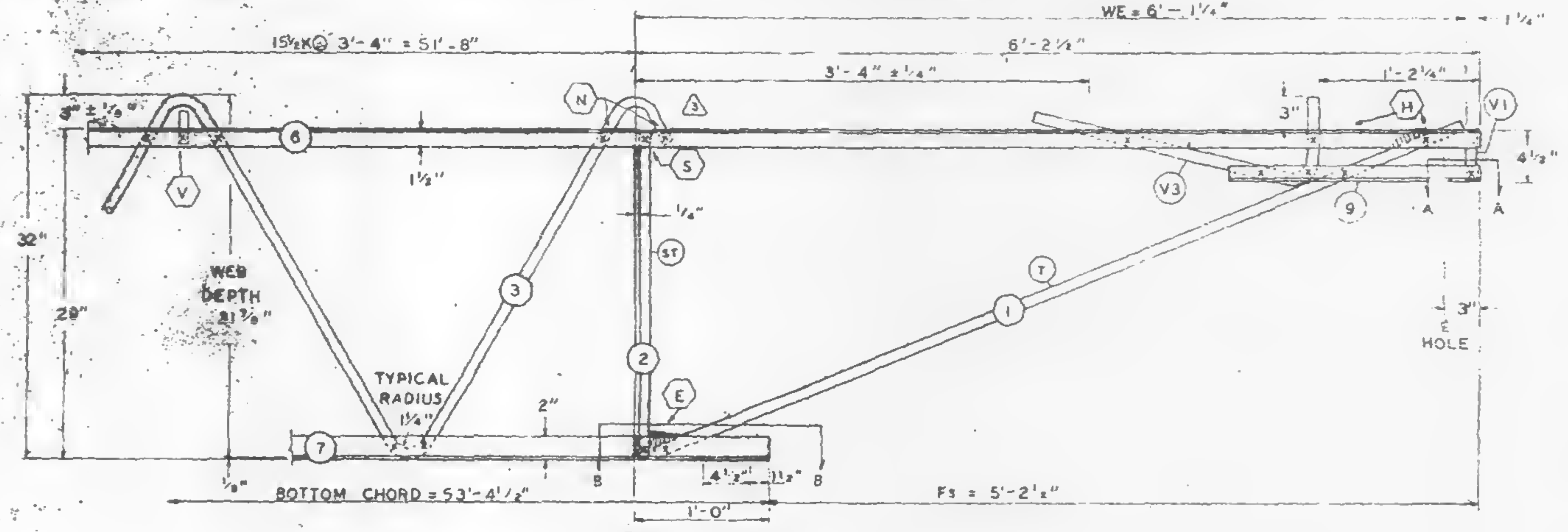
| | |
|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | |
| FABRICATED E. MADISON, ILLINOIS | DESIGN DRAWING NO 7-A81-7 7-A83-2 PLATE |
| APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE 7-2-[illegible] | DRAWN BY: L.S. DATE MAY 27, 1968 |
| APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE | CHECKED BY J.J. PAUL DATE MAY 27, 1968 — IN CHARGE OF PROD. DEV. |
| DETAILED BY: A.C. WEBER | FABRICATION CONT. NO. W.T.C. 221 [illegible] — SHEET NO. ST209 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
15½K @ 3'-4" = 51'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD. K = 3'-4"
TYPICAL FOR ALL RESISTANCE WELD
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
TYPICAL
2-C32T6
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS.
8½"
1½"
4½"
℄ (COL.)
Fs = 5'-2½"
WE
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 53'-4½"

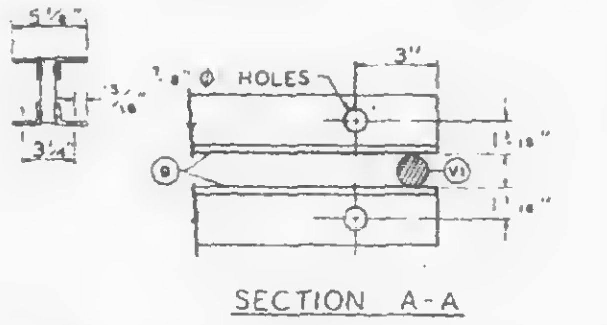
TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., [R6].

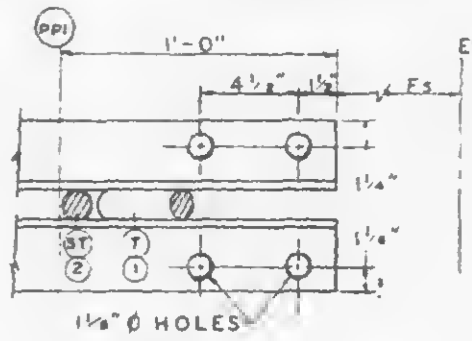
| FABRICATION REQUIREMENTS | DESIGN | TOL. |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



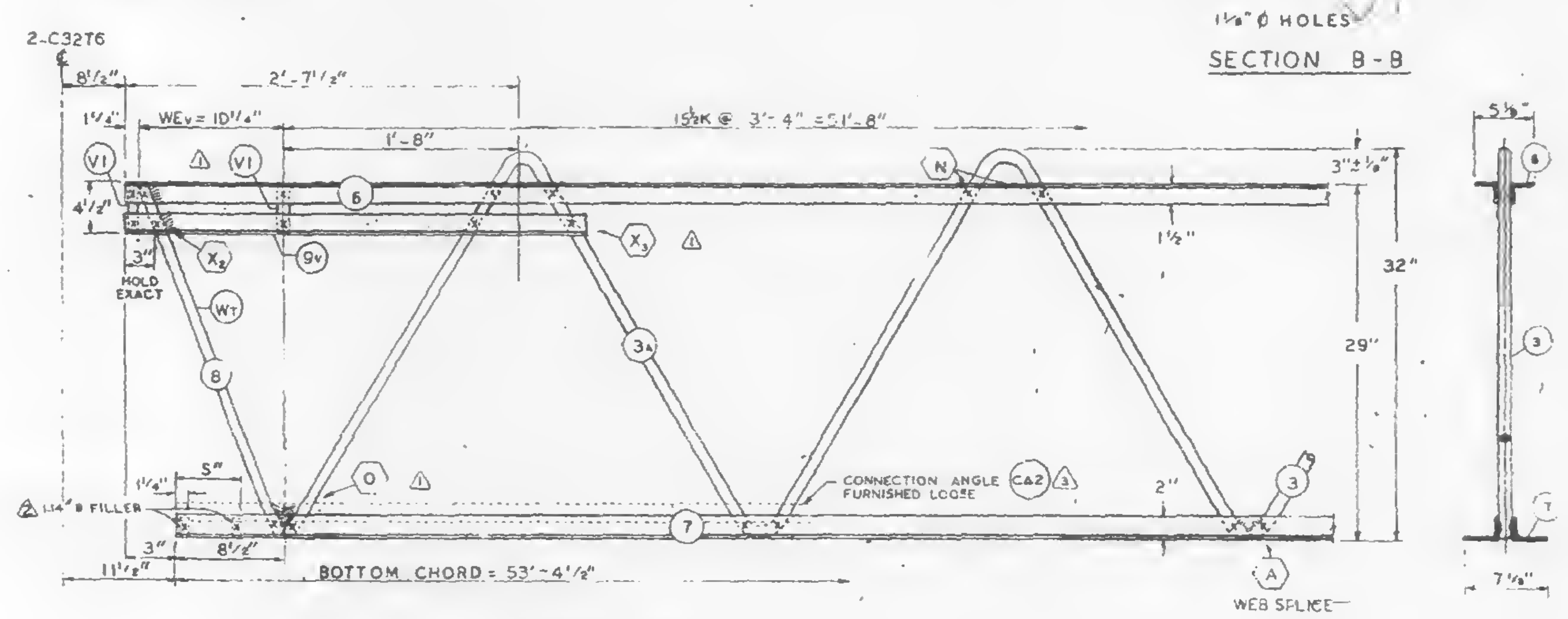
SECTION A-A



SECTION B-B

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 12-9-66 | MAIN WEB LENGTH. | G.D.C. |
| 3 | 11-19-68 | AS NOTED | G.D.C. |
| 2 | 8-30-68 | BOTTOM CHORD FILLER | T.M.C. |
| 1 | 7-1-68 | AS NOTED | T.M.C. |



EL END (CORE)

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-7 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 10-15-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | 2 FILLER | | "M" C/C HOLES | CONNECTION FILLER | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | 4 LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T9-5810 | 6 | A242 | 2"x1½"x.31" | 58'-10" | 7 | A36 | 3"x2"x.33" | 53'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 84'-6½"<br>12'-5½" | 13½ 2K x 3'-4" = 45'-0"<br>2K x 3'-4" = 6'-8" | 15<br>2 | 1.09<br>1.14 | — | 4 | 1.09 | 3" | — | — | — | — |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | 3 LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T9-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | 1.14" | 6'-5" | 2 | A36 | 1.09" | 2'-4⅞" | A242 | 1.14" | 4⅜" | A242 | 1.14" | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-5½" | 22'-10½" | 35'-2½" | 49'-6½" | 5'-2½" |

CORE END

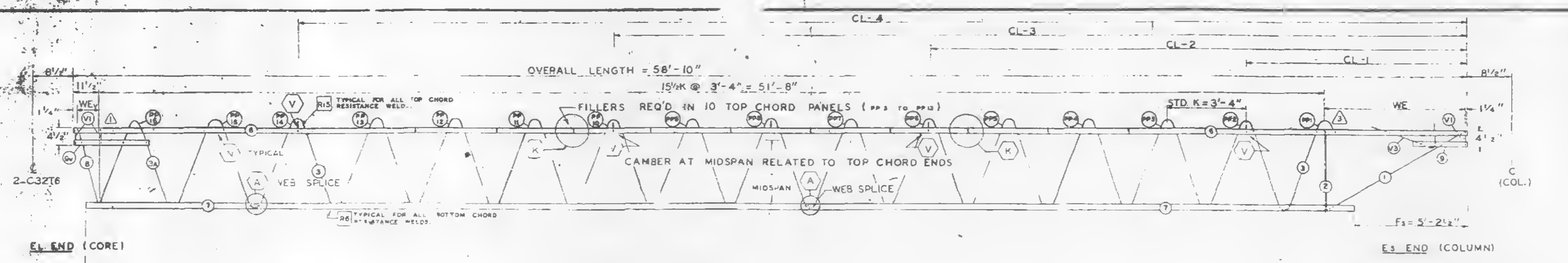
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER [illegible] | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | WEB "Wt" | | | | | CONNECTION ANGLES (FURNISHED LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH | NO. | 3 MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T9-5810 | 9V | A242 | 2"x1½"x.31" | 3'-2" | 10¼" | — | — | — | — | — | — | — | — | A242 | 1.14" | 4⅜" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | 1.14" | 2'-5¾" | 2 | CA2 | A242 | 2"x1½"x37" | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T9 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

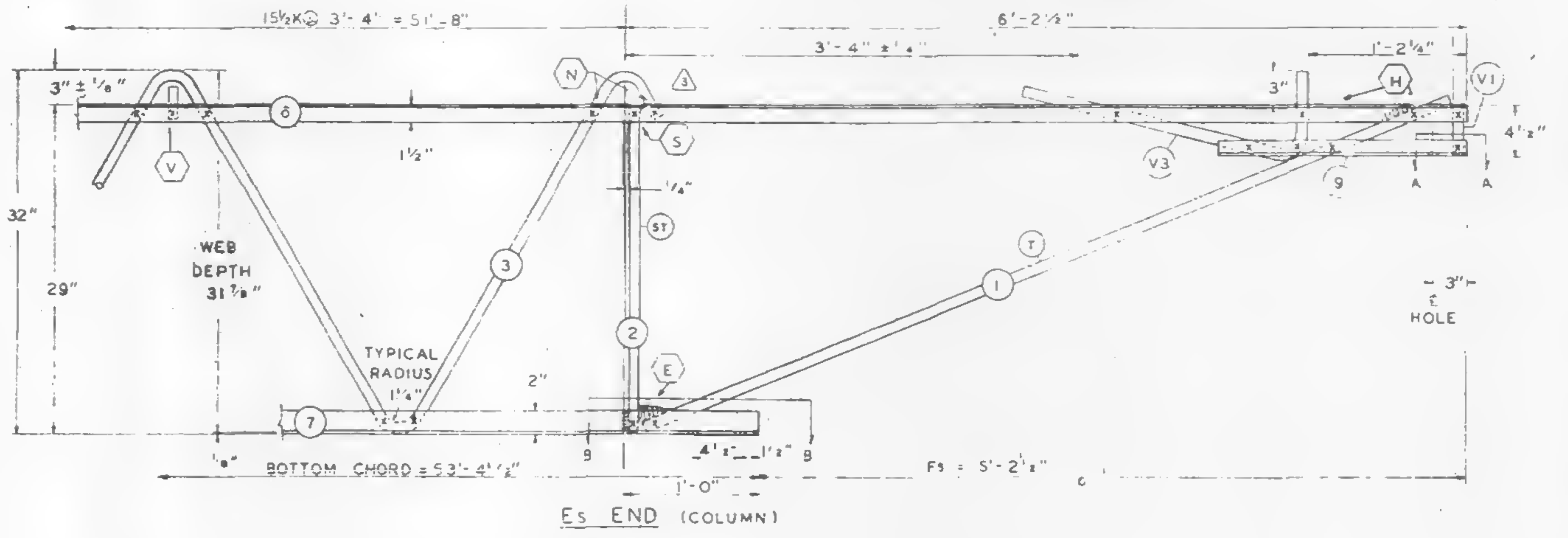
| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-7 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A. | DATE 12/12/68 | DRAWN BY: [illegible] DATE: MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE. | CHECKED BY: [illegible] DATE: MAY 27, 1968 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO. DETAILED BY: [illegible] | | FABRICATION CONTRACT NO. W.T.C. 221 | SHEET NO. ST209 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
15½K @ 3'-4" = 51'-8"
8½"
1½"
WEv
R15 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
STD K = 3'-4"
WE
1¼"
4½"
2-C32T6
TYPICAL
WEB SPLICE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
C (COL.)
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 53'-4½"
WE = 6'-1¼"

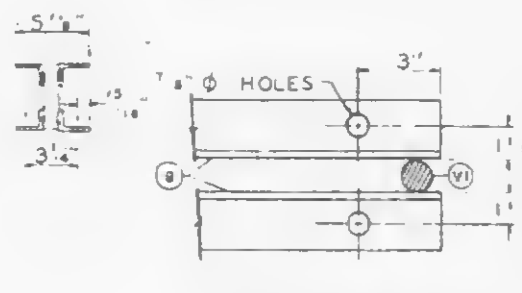
## TRUSS ELEVATION

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1 15/16" | ± ⅛" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'- | ± 1/4" |
| OVERALL LENGTH | | ± 3/[illegible] |
| WEB DEPTH | 31 7/8" | ± [illegible] |

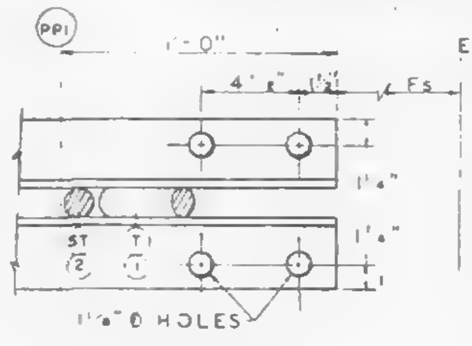
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291 AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., $\boxed{R6}$.



Es END (COLUMN)



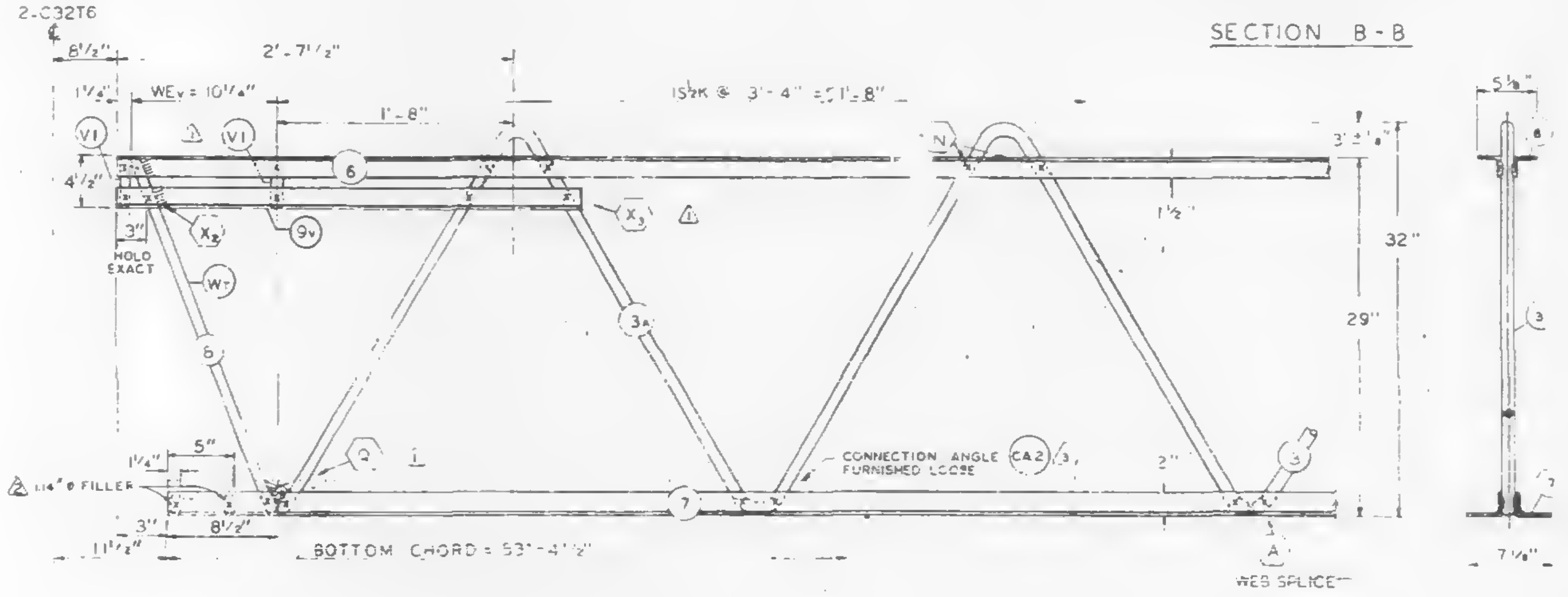
SECTION A-A



END OF TRUSS (COLUMN)

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223 G

SECTION B-B



EL END (CORE)

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 11-19-68 | AS NOTED | G.[illegible]C. |
| 2 | 8-30-68 | BOTTOM CHORD FILLER | T.M.C. |
| 1 | 7-1-68 | AS NOTED | T.M.C. |

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-7 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.3 | 10-20-67 |
| 7-AB1-53 | 10-13-66 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLER | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T9-5810 | 6 | A242 | 2"x1½"x.31" | 58'-10" | 7 | A36 | 3"x2"x.33" | 53'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 86'-6½"<br>12'-5½" | 13½K @ 3'-4" = 45'-0"<br>2K @ 3'-4" = 6'-8" | 13<br>2 | 1.08<br>1.14 | — | 4 | 1.09 | 3" | – | — | — | — |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T9-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | 1.14 | 6'-5" | 2 | A36 | 1.09" | 2'-4⅞" | A242 | 1.14" | 4⅜" | | 1.14" | 2'-9½" | – | — | — | — |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 35'-2½" | 45'-6½" | 5'-2½" |

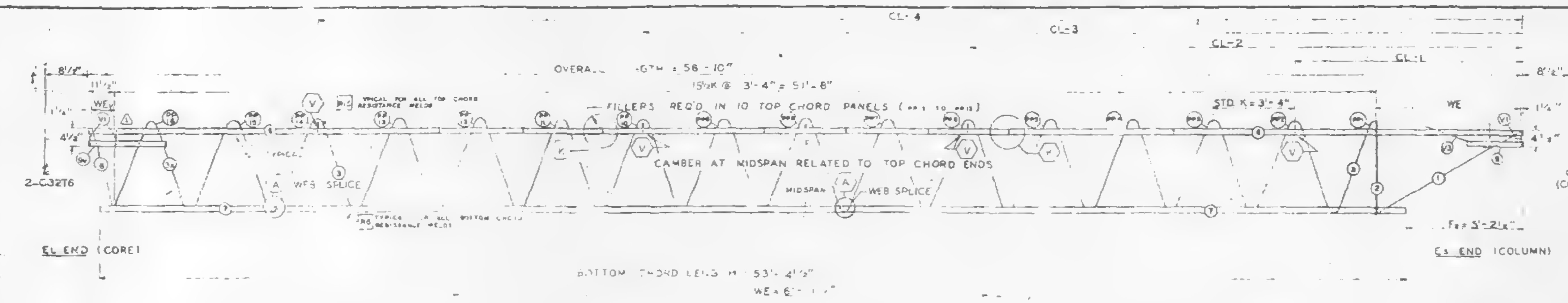
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | WEB "WT" | | | | | CONNECTION ANGLES (FURNISHED LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | NO. | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T9-5810 | 9v | A242 | 2"x1½"x.31" | 3'-2" | 10¼" | – | — | — | — | — | — | — | — | A242 | 1.14" | 4⅜" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | 1.14" | 2'-5¾" | 2 | CA3 | A242 | 2"x1½"x.37" | 4'-4" |

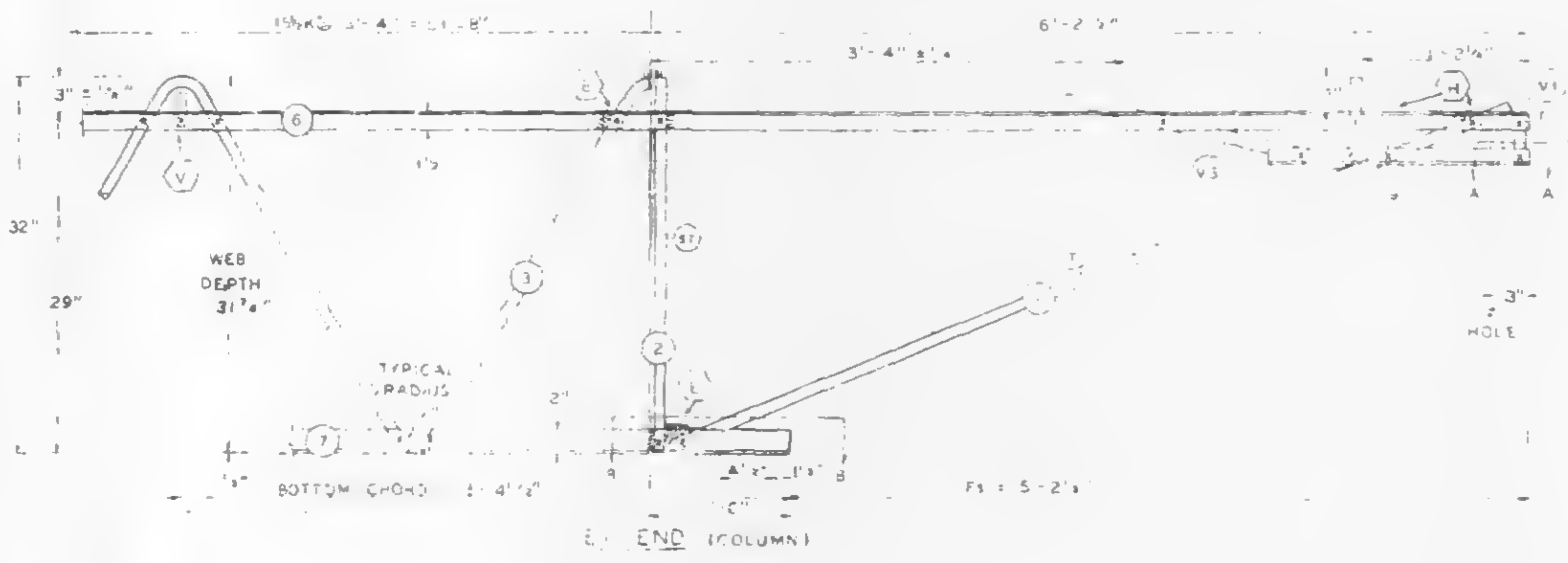
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

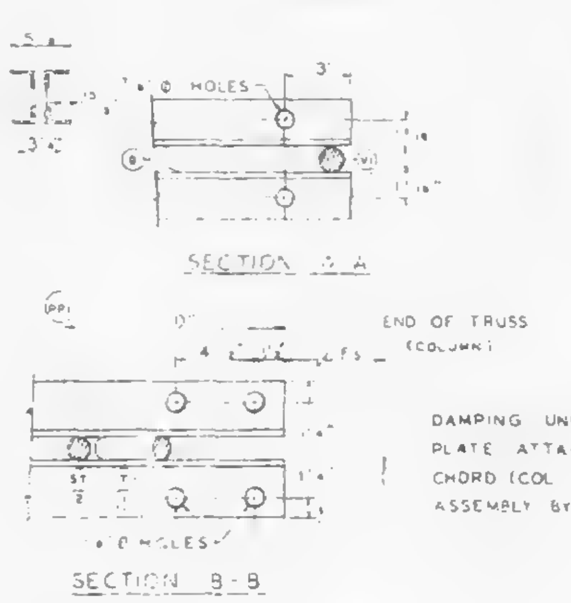
FLOOR TRUSS C32T9 - 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-7 7-AB3-2 PLATE
APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A DATE 12/2/68
DRAWN BY: [illegible] DATE. MAY 27, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: J.B. [illegible] DATE. MAY 27, 1968
IN CHARGE OF PROD. DEV
DETAILED BY: [illegible]
FABRICATION CONT. NO. W.T.C. 221 [illegible]
SHEET NO. ST209



TRUSS ELEVATION



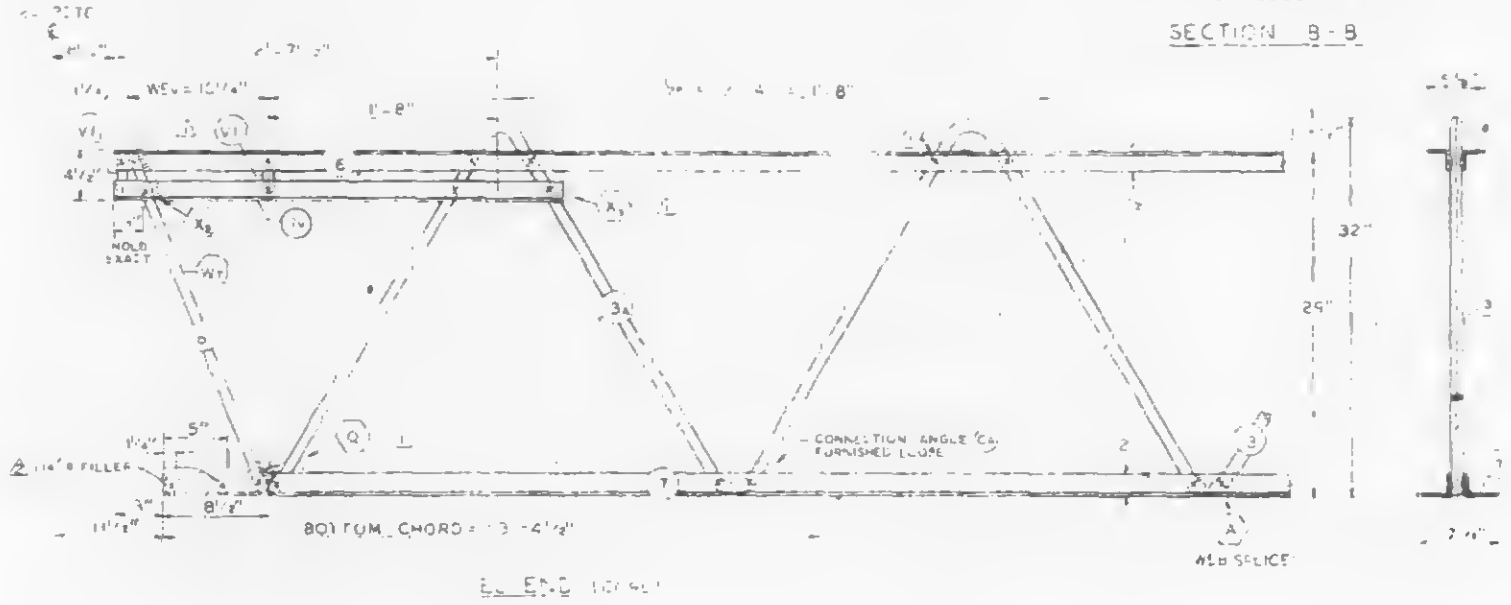


SECTION A-A

SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY [illegible]



EL END (CORE)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 32" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES |  |  |  | BOTTOM CHORD TWO ANGLES |  |  |  | MAIN WEB "W" |  |  |  |  | FILLER |  | M HOLES | CONNECTION FILLER |  |  | CHORD PLATE |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA |  | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T9-5810 | 6 | A242 | 2"x1½"x.31" | [illegible]10" | 7 | A36 | [illegible]x2"x.33" | 53'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible] | [illegible] | [illegible] | [illegible] | —— | 4 | 1.09 | 3" |  | — |  | — |

| COLUMN END | Es END TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WE | DIAGONAL "T" STRUT |  |  |  | VERTICAL "ST" STRUT |  |  |  | END STIFFENER MK V1 |  |  | END STIFFENER MK V3 |  |  | DOUBLE STRUT |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
|  | C32T9-58I | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | [illegible] | 6'-5" | 2 | A36 | [illegible] | 2'-7⅞" | A242 | 1.4 | 4⅞" | A242 | 1.4 | 2'-9½" |  | — | — | — |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| [illegible] | 22'-10½" | 35'-7½" | 45'-6½" | 5'-2½" |

| CORE END | EL END TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WE | [illegible] STRUT |  |  |  | VERTICAL "ST" STRUT |  |  |  | END STIFFENER MK V1 |  |  | END STIFFENER MK V2 |  |  | END STIFFENER MK V4 |  |  | WEB "WC" |  |  |  |  | WEB "WT" |  |  |  |  | CONNECTION ANGLES FURNISHED (LOOSE) |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
|  | C32T9-58IC | 9 | A242 | 2"x1½"x[illegible] | 3'-2" | 10¼" | — | — | — | — | — | — | — | — | A242 | 1.14" | 4⅝" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | 1.14" | 2'-5¾" | 2 | C4 | A242 | 2"x1½"x.37" | 4'-4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 8-30-68 | BOTTOM CHORD FILLER | T.M.C. |
| 1 | 7-1-68 | AS NOTED | T.M.C. |

REF. DRWG.

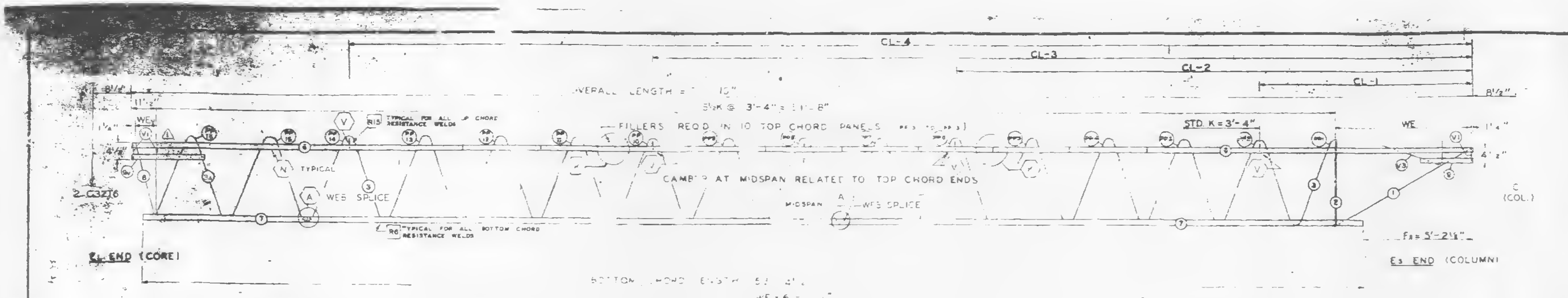
| | |
|---|---|
| 7-AB1-7 | 4-15-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

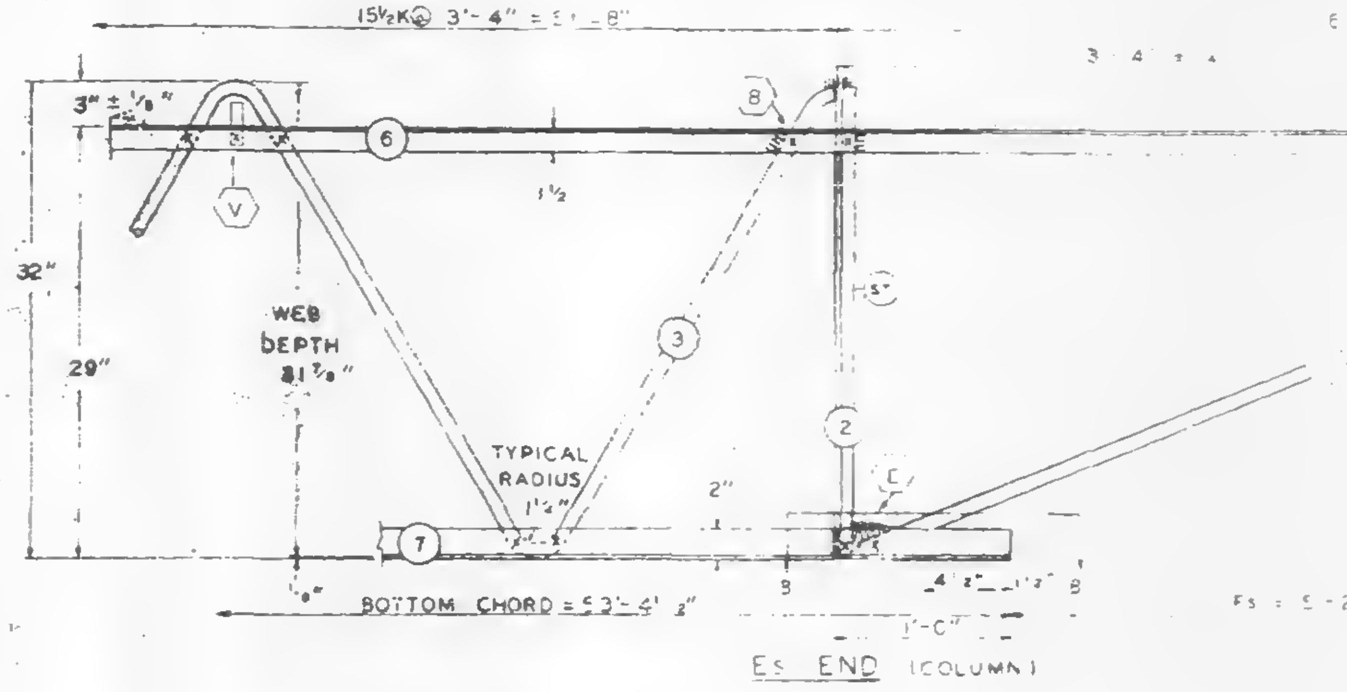
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T9 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

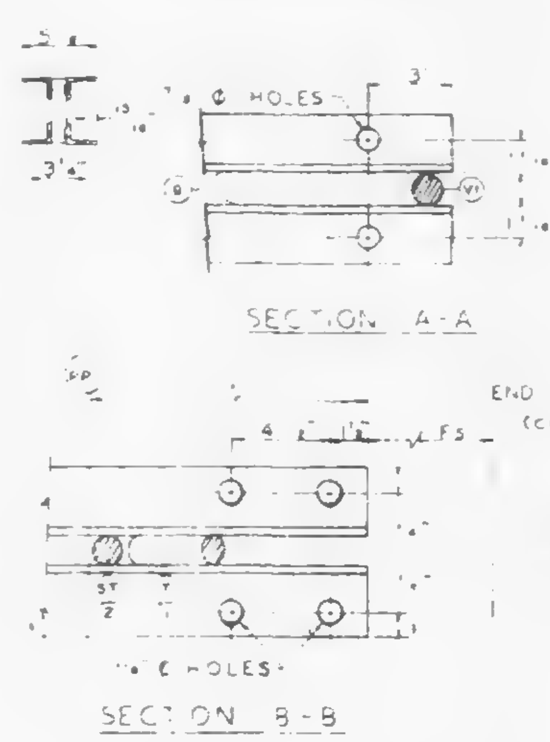
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-7 7-AB3-2 PLATE
APPROVED FOR FABRICATION [illegible] FOR PONYA DATE 9/4/68
DRAWN BY [illegible] DATE MAY 27, 1968
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE ____
CHECKED BY J.R. [illegible] DATE MAY 27, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO
DETAILED BY A.C. WEBER
FABRICATION CONTRACT NO W.T.C. 221 [illegible]
SHEET NO ST209



TRUSS ELEVATION



Es END (COLUMN)

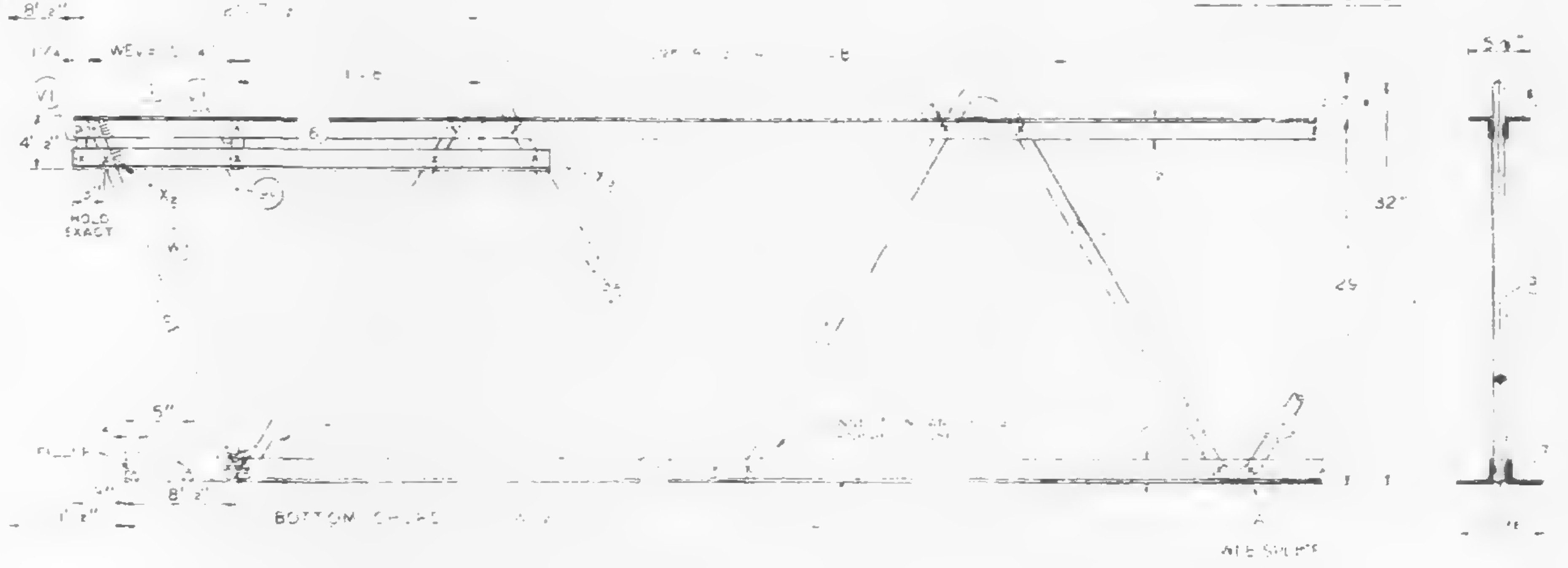


SECTION A-A

SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291
AND ST292.
SEE SHEET ST [illegible] FOR [illegible] & V3 DETAILS.
LETTERS IN [illegible] INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e., [R6].

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY [illegible]



| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1.15 .5" | 1/8" |
| DESIGN DEPTH | " | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/ |
| OVERALL LENGTH | 58'-10" | ± 3/ |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 7-1-66 | AS NOTED | T.M. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-7 | 4-15-68 |
| 7-AB1-62 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-66 |

PAINT
LACLEDE ELECTROCOAT
FED. [illegible] NO. 0001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF [illegible] | [illegible] |
| C32T9-5810 | 6 | A242 | 2"x1 1/2"x.31" | 58'-10" | 7 | A36 | 3"x2"x.33" | 53'-4 1/2" | 3<br>3A | A36<br>A242 | 1.09<br>1.13 | 84" [illegible]<br>12'-5 1/2" | [illegible] | [illegible] |

| COLUMN END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V | | | MK V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T6-5810 | 9 | A242 | 2"x1 1/2"x.25" | 1'-10" | 6'-1 1/8" | 1 | A242 | .4" | 6'-5" | 2 | A36 | 1.09" | 2'-7 7/8" | A242 | .4" | 4 3/4" | A242 | .4" | 2'-9 | — | — | — | — |

CHECK DIMENSION FOR TRUSS FA6
LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 5'-2 1/2" |

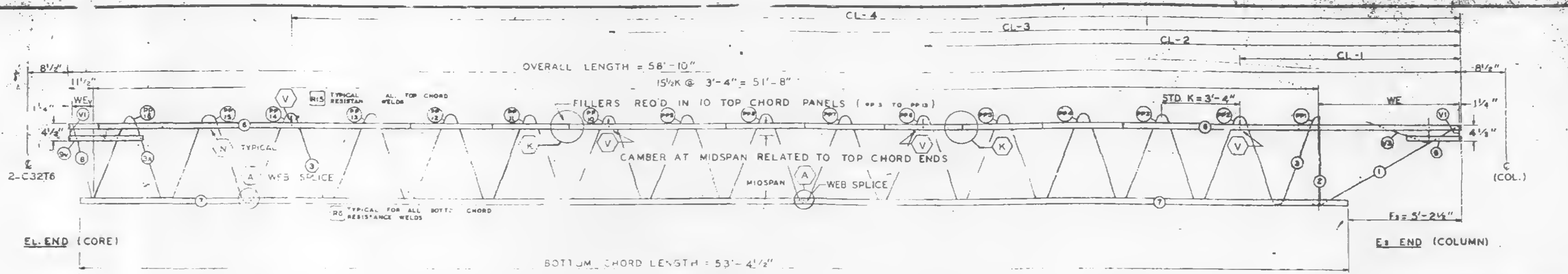
| CORE END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEV | VERTICAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | | CONNECTION ANGLES (FURNISHED LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH | NO. | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T6-5810 | 9V | A242 | 2"x1 1/2"x.31" | 3'-2" | 10 1/4" | — | — | — | — | — | — | — | — | A242 | 1.14" | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | 1.14" | 2'-5 3/4" | 2 | CA | A242 | 2"x1 1/2"x.37" | 4'-4' |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

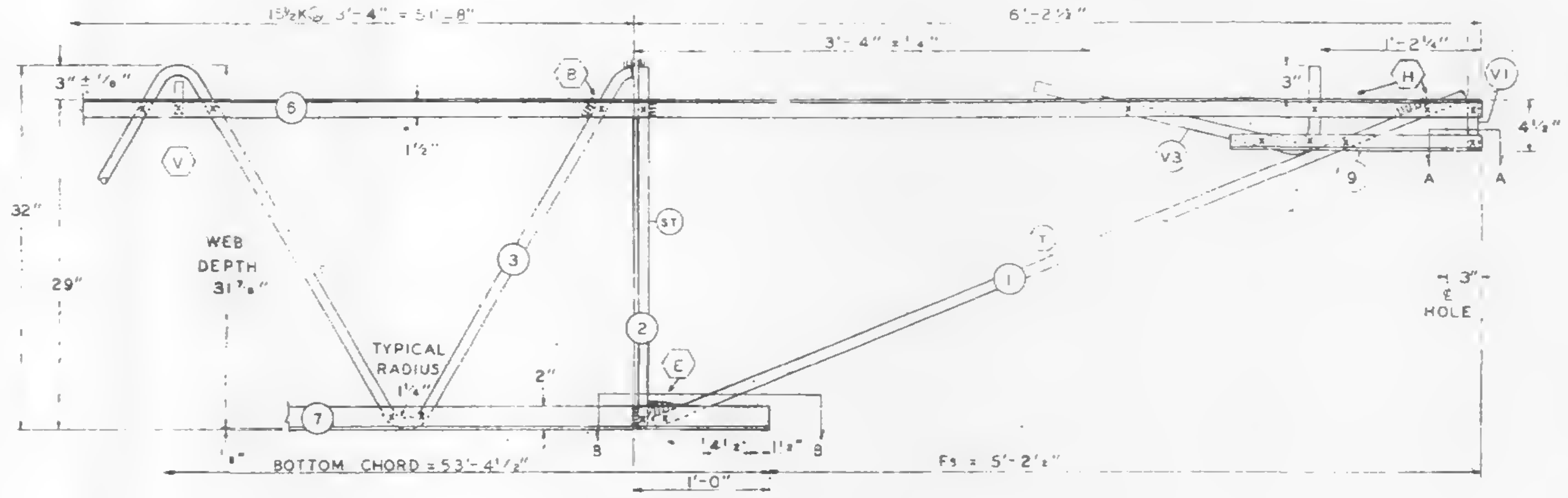
FLOOR TRUSS C32T [illegible] 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

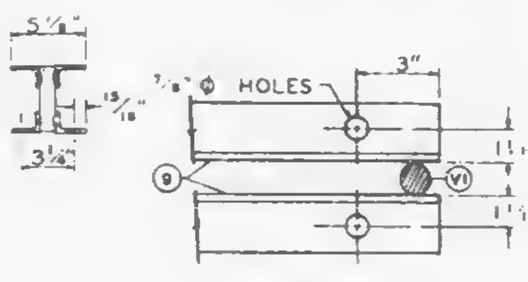
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-7 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. | DATE 7/9/68 | DRAWN BY: [illegible]<br>DATE: MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: [illegible]<br>DATE: MAY 27, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 [illegible] | SHEET NO. ST209 |



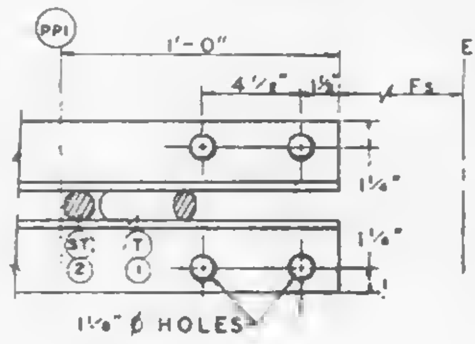
## TRUSS ELEVATION



## Es END (COLUMN)



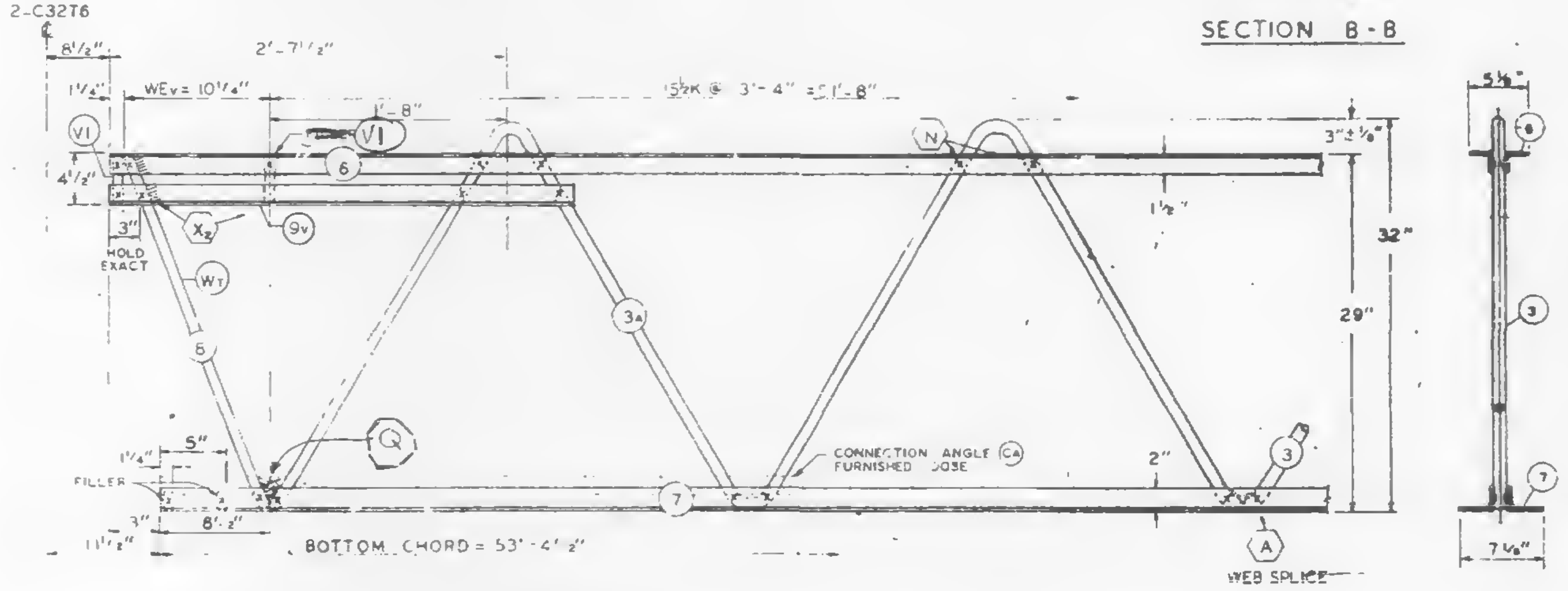
## SECTION A-A



## SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R6.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.00.



## EL END (CORE)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/8" |
| PANEL "K" | [illegible] | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± [illegible]/8" |
| WEB DEPTH | [illegible] | ± 1/4" |

**REF. DRWG.**

| | |
|---|---|
| 7-AB1-7 | 4-15-68 |
| 7-AB1-82 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLES | CONNECTION FILLER | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T9 58'10 | 6 | A242 | 2"x1½"x.31 | 58'-10" | 7 | A36 | [illegible] | [illegible] | 3<br>3A | A36<br>[illegible] | 1.09<br>1.14 | [illegible]<br>12'-5½" | [illegible] | 13 | 1.09" | — | 4 | 1.09 | 3" | — | — | — | — |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WF | DIAGONAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T9 58'10 | 9 | A242 | 2"x1½"x[illegible] | [illegible] | 6 [illegible] | 1 | [illegible] | [illegible] | 6'-5" | 2 | A36 | 1.09" | 2'-7⅞" | A242 | [illegible] | 4⅞" | A242 | 1.14" | 2'-9½" | — | — | — | — |

| CHECK DIMENSION FOR TRUSS FAB. | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
X [illegible] AS NOTED
6/27/68 SK

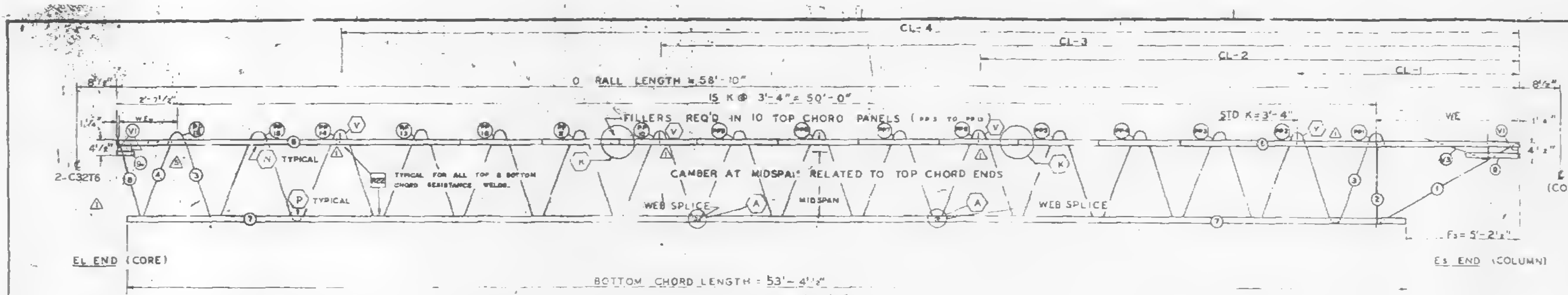
| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | | CONNECTION ANGLES (FURNISHED LOOSE) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA. | LENGTH | NO. | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | | C32T9 58'10 | 9 | A242 | 2"x1½"x.31 | [illegible] | 10¼" | | | | | | | | | A242 | 1.14" | 4⅞" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | 1.14" | 2'-5¾" | 2 | Ca | A242 | 2"x1½"x3/16" | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T9 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-7 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. | DATE | DRAWN BY: [illegible]<br>DATE: MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR | DATE. | CHECKED BY: [illegible]<br>DATE: MAY 27, 1968 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO.<br>DETAILED BY: [illegible] | | [illegible] | SHEET NO. ST209 |



## TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN △1 | 1 11/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

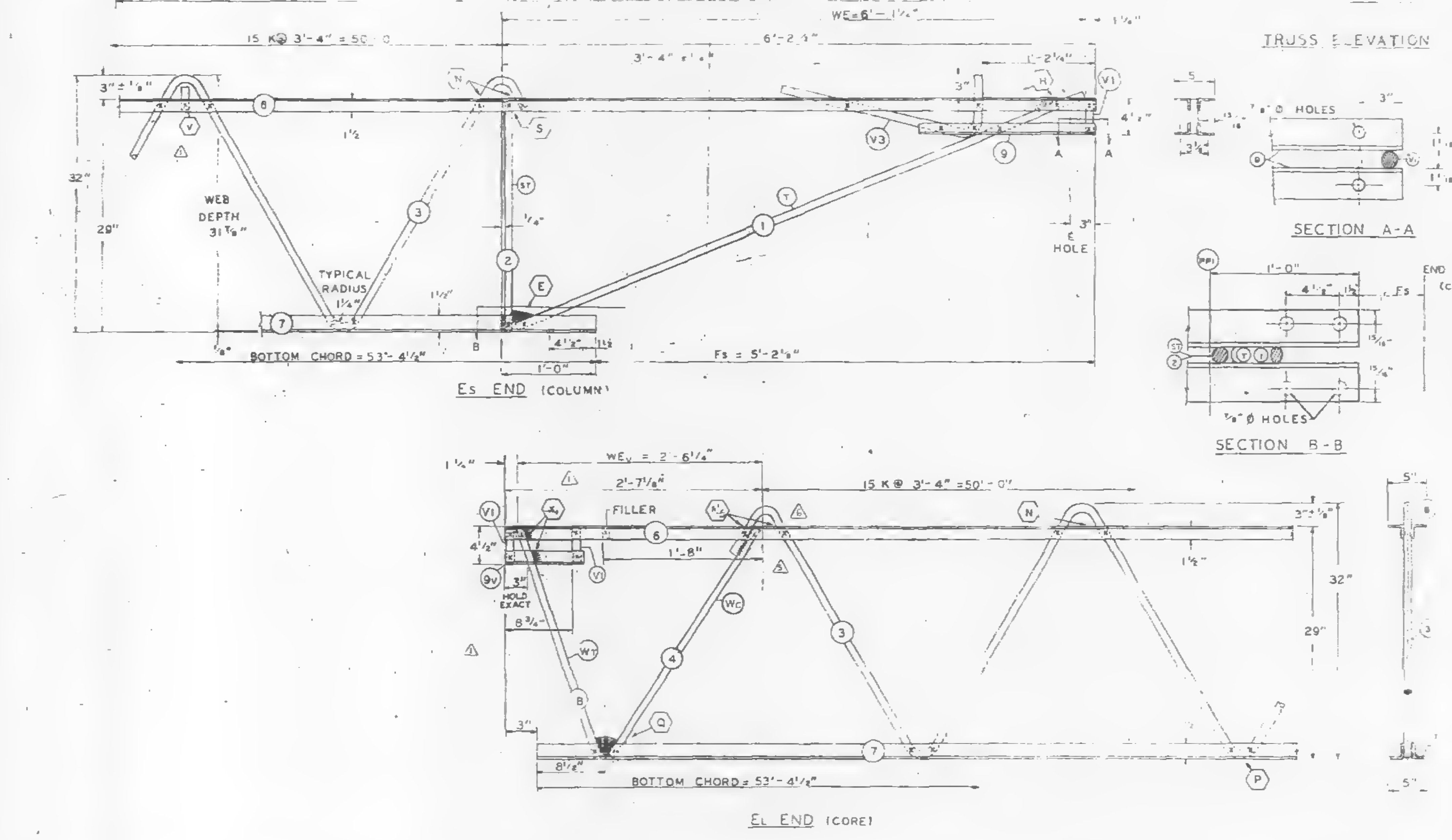
ALL PANEL POINTS RESISTANCE WELDED (A) ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬)

△1 ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.

SEE SHEET ST295 FOR V1 & V3 DETAILS.

LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).

LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R22.



DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △6 | 5-5-70 | AS NOTED | G.D.C. |
| △5 | [illegible]-1-70 | AS NOTED | G.D.C. |
| △4 | 12-3-68 | GENERAL | G.D.C. |
| △3 | 7-1-68 | CONNECTION FILLER | T.M.C. |
| △2 | 6-27-68 | AS NOTED | T.M.C. |
| △1 | 5-27-68 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-ABI-8 | 7-22-68 |
| 7-AB-[illegible]2 | 2-15-68 |
| 7-AB4-[illegible] | 8-1-68 |
| 7-AB[illegible] | [illegible]-3-68 |
| 7-AB4-52.5 | 10-20-67 |
| 7-ABI-53 | 7-22-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" △6 | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO OF W | NO. | DIA. | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T10-5810 | 8 | A242 | 2"x1½"x.25" | 58'-10" △1 | 7 | A242 | 2"x1½"x.25" | 53'-4½" △1 | 3 | A242 | .92" | 94'-3" | 15 @ 3'-4" = 50-0" | 11 | .92" | — | 4 | .92 | 5" △3 | — | — | — | — | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T10-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .98" | 6'-5" | 2 | A242 | [illegible] | [illegible]-4⅜" | A242 | .88" | 4⅝" | A242 | [illegible] | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.
LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

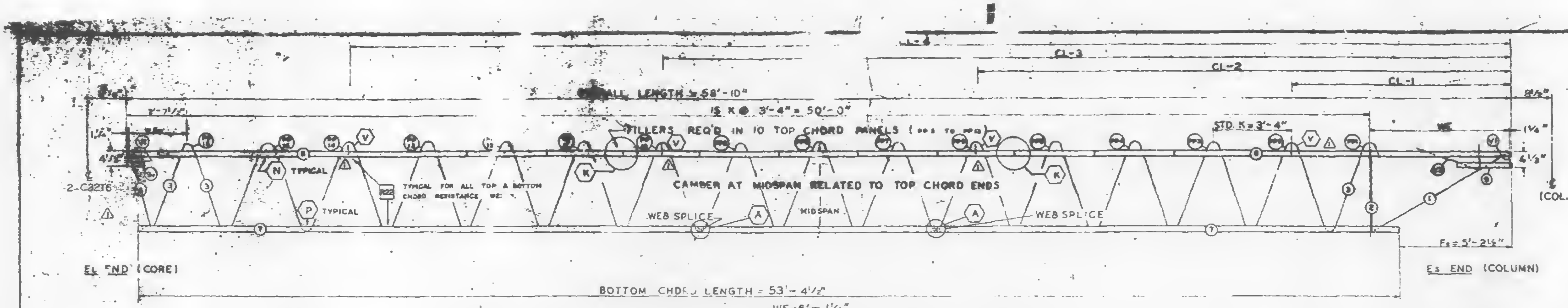
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" △4 | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (2 RE'D) | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH |
| | C32T10 5810 | 9v | A242 | 2"x1½"x.25" △1 | 10" | 2'-6½" △2 | — | — | — | — | — | — | — | — | A242 | .92" △1 | | — | — | — | — | — | — | 4 | A242 | 1 | .92 | 2'-10" | 8 | A242 | 1 | .92" | 2'-5¾" △2 |

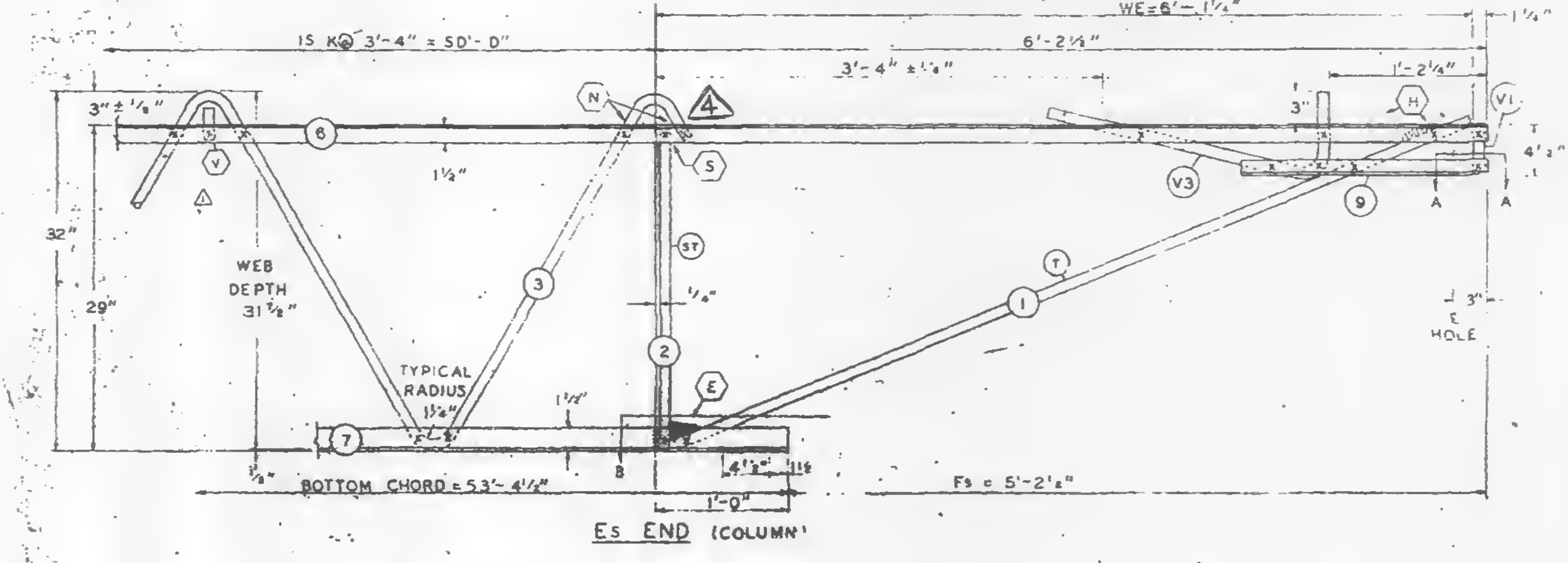
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T10 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

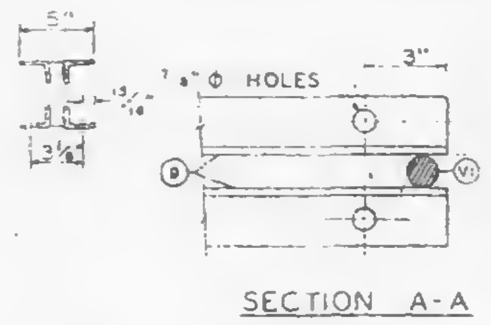
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-ABI-8 7-AB-2 PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE 5/7/70
DRAWN BY: [illegible] DATE: FEB. 24, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: [illegible] DATE FEB. 26, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. WTC 221[illegible]
SHEET NO. ST210



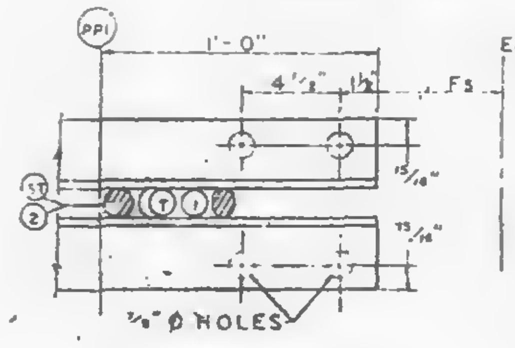
## TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A

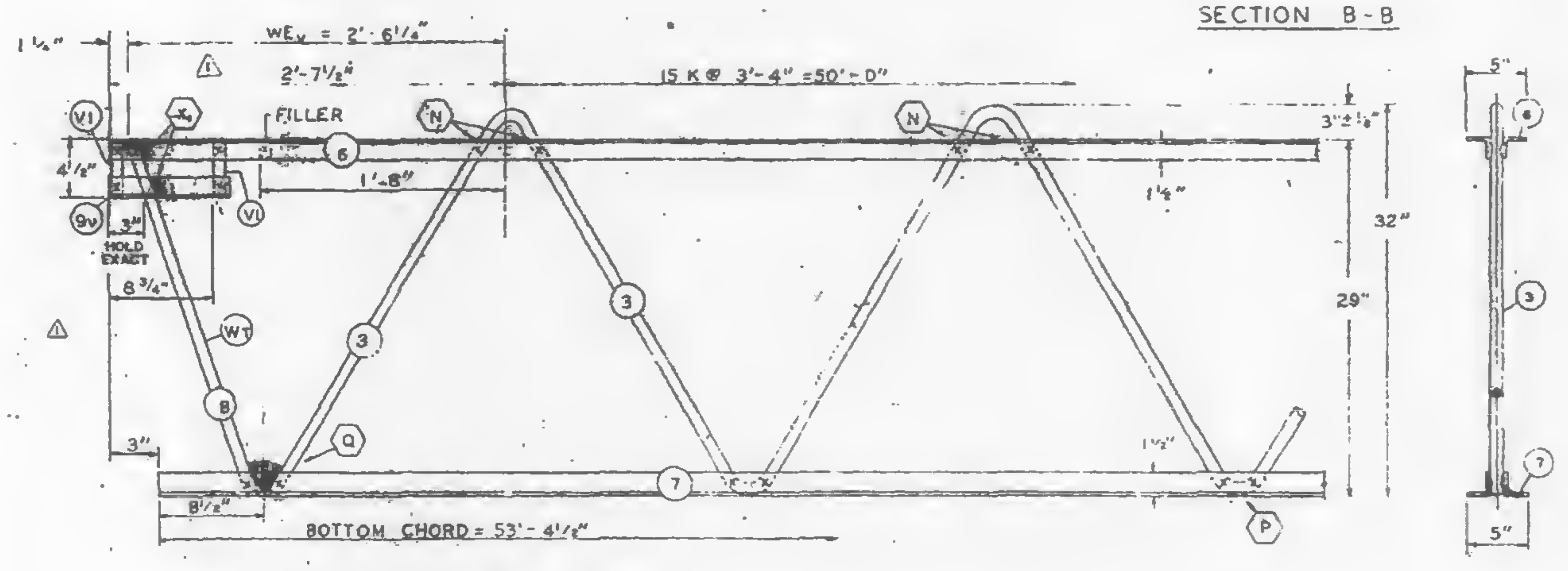


SECTION B-B

END OF TRUSS (COLUMN)

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL. END) IN FIELD.
ASSEMBLY BY CONTRACT WTC 223.DD.

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
△1 ALL WELD DETAILS SHOWN ON SHEETS ST290, ST 291,
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R22.



EL END (CORE)

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" c/c HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO. | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T10-581D | 6 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | 2"x1½"x.25" | 53'-4½" | 3 | A242 | .92" | 97'-0" | 15½@ 3'-4"=51'-8" | 11 | .92" | —— | 4 | .92 | 3" | — | —— | —— | —— | | |
| | | | | △1 | | | | △1 | | | | | | | | | | △3 | | | | | | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T10-581D | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .98" | 6'-5" | 2 | A242 | .92" | 2'-4⅞" | A242 | .98" | 4⅜" | A242 | [illegible] | 2'-9½" | — | —— | — | —— |

| CHECK DIMENSION FOR TRUSS FAB. | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WTv" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. [illegible] | | | MK. V4 | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T10 581C | 9v | A242 | 2"x1½"x.25" | 10" | 2'-6¼" | — | — | — | — | — | — | — | — | A242 | .92" | 4⅜" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | .92" | 2'-5¼" |
| | | | | △1 | | △2 | △1 | | | | | | | | | △4 | | | | | | | | | | | | | | | | | |

| FABRICATION [illegible] | | |
|---|---|---|
| | [illegible] | [illegible] |
| CAMBER AT MIDSPAN △2 | 1½" | [illegible] |
| DESIGN DEPTH | 32" | [illegible] |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | 58'-10" | [illegible] |
| WEB DEPTH | 31½" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △4 | 12-3-68 | GENERAL | G.D.C. |
| △3 | 7-1-68 | CONNECTION FILLER | T.M.C. |
| △2 | 6-27-68 | AS NOTED | T.M.C. |
| △1 | 5-27-68 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-A81-6 | 7-22-68 |
| 7-A81-52 | [illegible] |
| 7-A84-50 | 8-1-68 |
| 7-A83-2 | 1-3-68 |
| 7-A84-50.5 | 10-20-67 |
| 7-A81-53 | 7-22-68 |

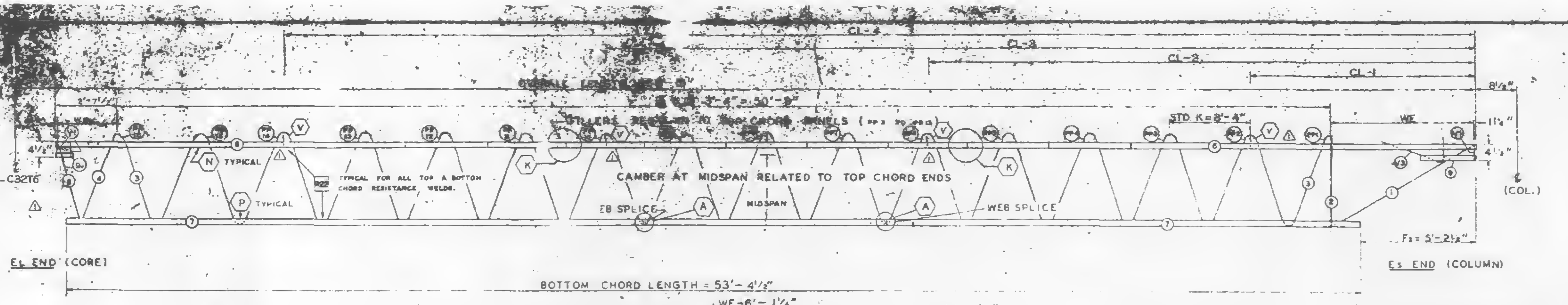
PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

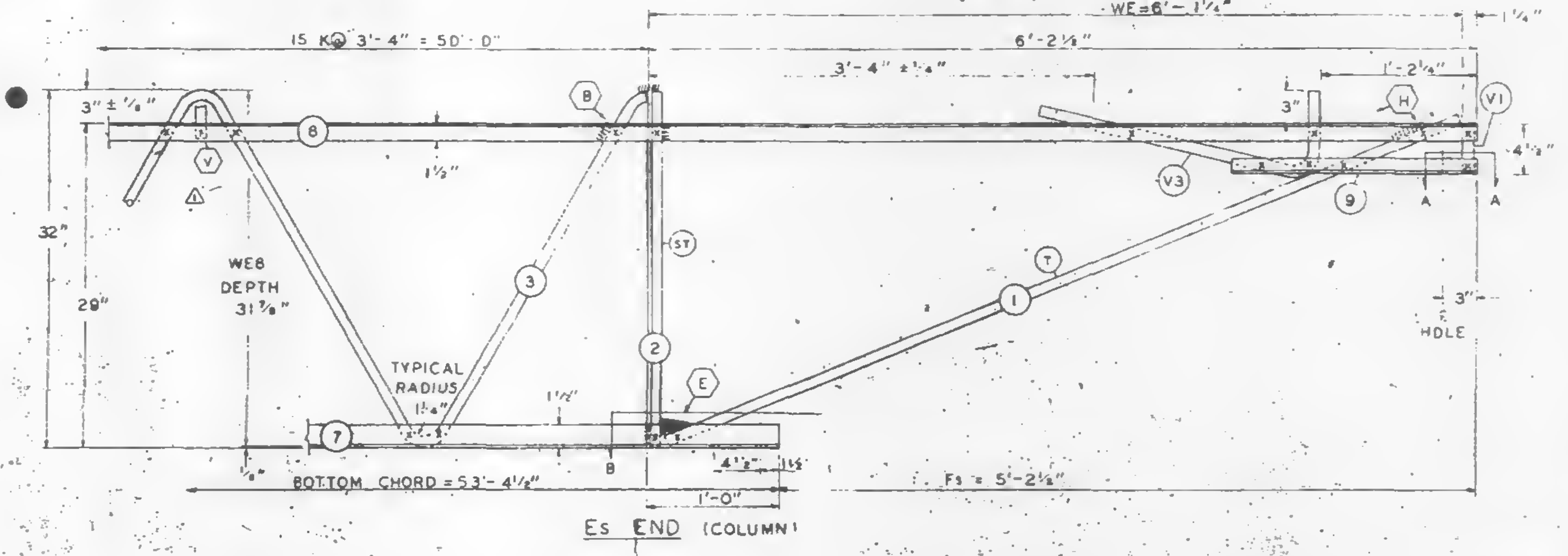
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T10 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A81-6 7-A81-[illegible] PLATE [illegible]
APPROVED FOR FABRICATION BY James [illegible] FOR P.O.N.Y.A. DATE 2/9/68
DRAWN BY: [illegible] DATE: FEB. 24, [illegible]
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY: [illegible] DATE FEB. [illegible]
IN CHARGE OF [illegible]
DETAILED BY [illegible]
FABRICATION [illegible] W.T.C. 22[illegible]
[illegible] NO. ST[illegible]

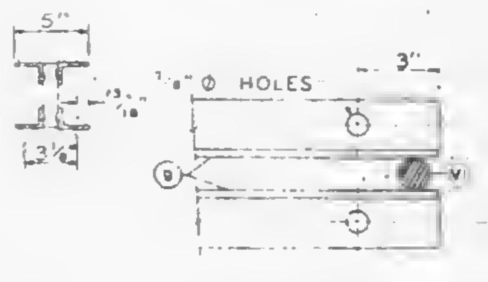

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH 58'-10"
15 K @ 3'-4" = 50'-0"
STILLERS REQ'D AT INDICATED PANELS
STD K = 3'-4"
WE
N TYPICAL
P TYPICAL
R22 TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS.
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
2-C32T6
(COL.)
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 53'-4½"

TRUSS ELEVATION

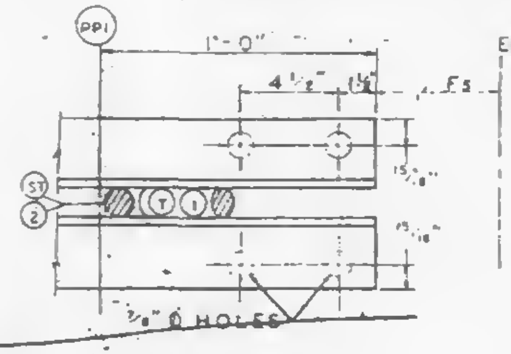


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
△1 ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R22.



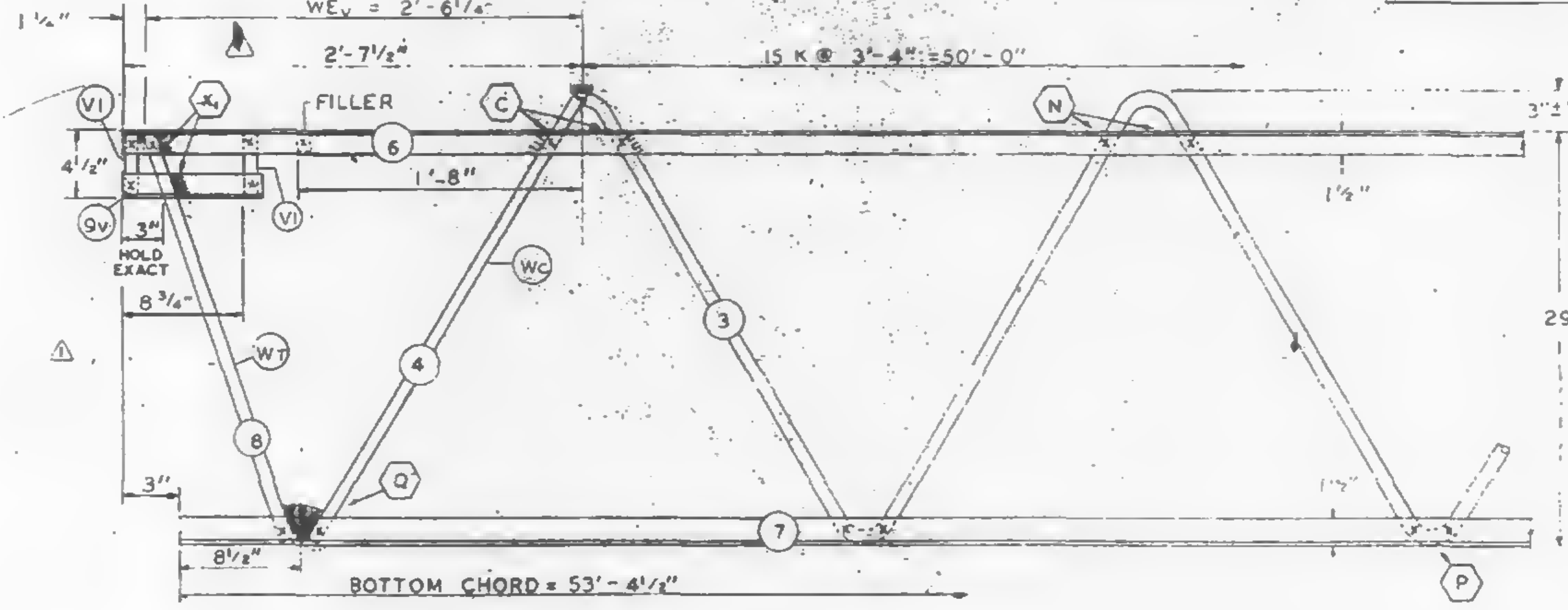
SECTION A-A



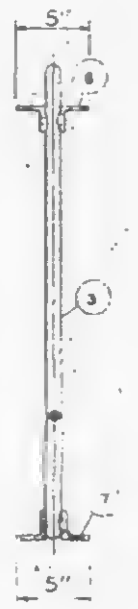
END OF TRUSS (COLUMN)

SECTION B-B

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



| FABRICATION | | |
|---|---|---|
| CAMBER AT MIDSPAN △ | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | [illegible] | [illegible] |
| OVERALL LENGTH | 58'-10 | [illegible] ⅜" |
| WEB DEPTH | 31 7/8" | [illegible] 1/4" |

| ND. | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 7-1-66 | CONNECTION FILLER | T.M.C. |
| △2 | 6-27-68 | AS NOTED | T.M.C. |
| △1 | 5-27-68 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-8 | △1 5-10-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-A63-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-68 |

PAINT

LACLEDE ELECTRDCOAT
RED ND. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF W | NO. | DIA | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T10-5810 | 6 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | 2"x1½"x.25" | 53'-4½" | 3 | A242 | .92" | 93'-5½" | 15@ 3'-4"=50'-0" | 11 | .92" | — | 4 | .92 | 3" | — | — | — | — | | |
| | | | | △1 | | | | △1 | | | | | | | | | △3 | | | | | | | | |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | | C32T10-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .98" | 6'-5" | 2 | A242 | .92" | [illegible]-7⅞" | A242 | .98" | " | A242 | [illegible] | 2'-9½" | — | — | — | — |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH |
| | | C32T10 5810 | 9v | A242 | 2"x1½"x.25" | 10" | 2'-6½" | — | — | — | — | — | — | — | — | A242 | .92" | 4¼" | — | — | — | — | — | — | 4 | A242 | 1 | .92" | 3'-0½" | 8 | A242 | 1 | .92" | 2'-5¾" △2 |
| | | | | △1 | | | △2 | | | △1 | | | | | | | △1 | | | | | | | | | | | | | | | | | |

CHECK DIMENSION FOR TRUSS FAB

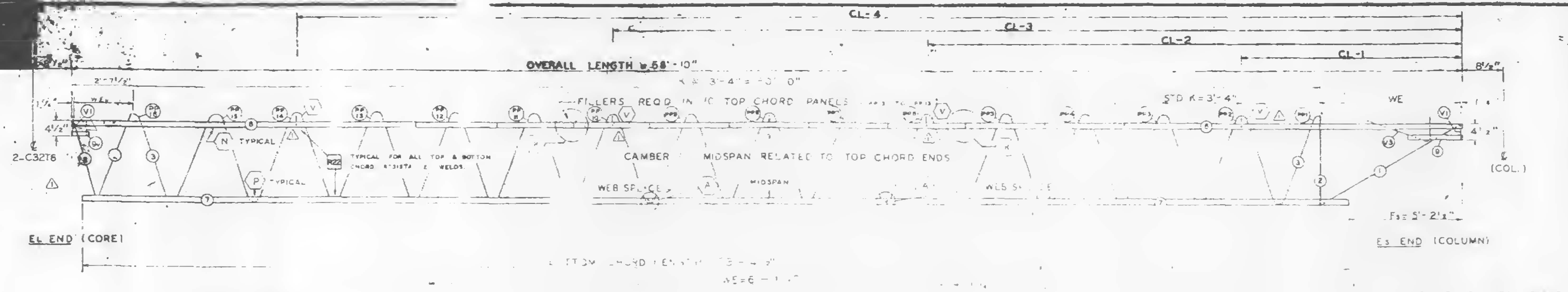
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T10 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

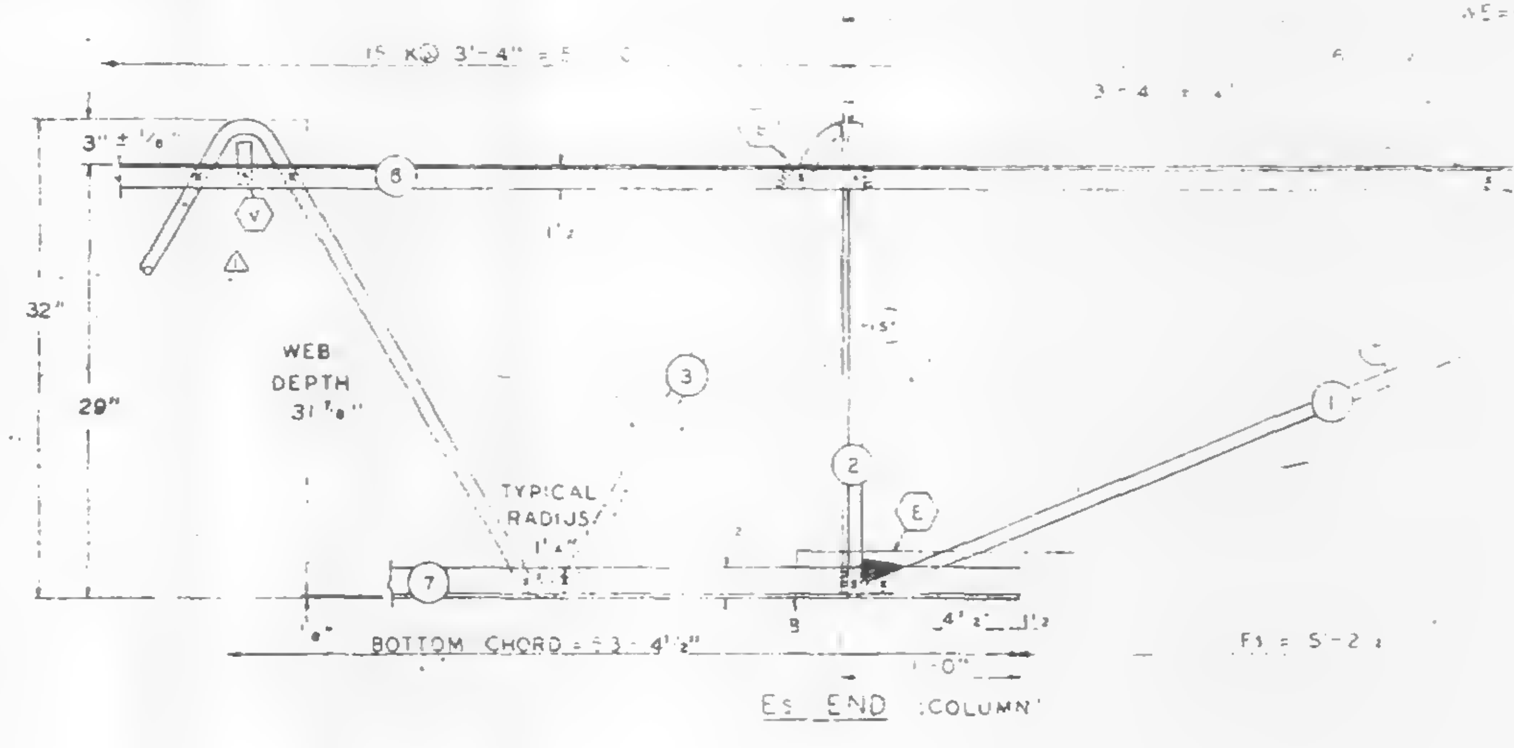
FABRICATION BY. LACLEDE STEEL COMPANY

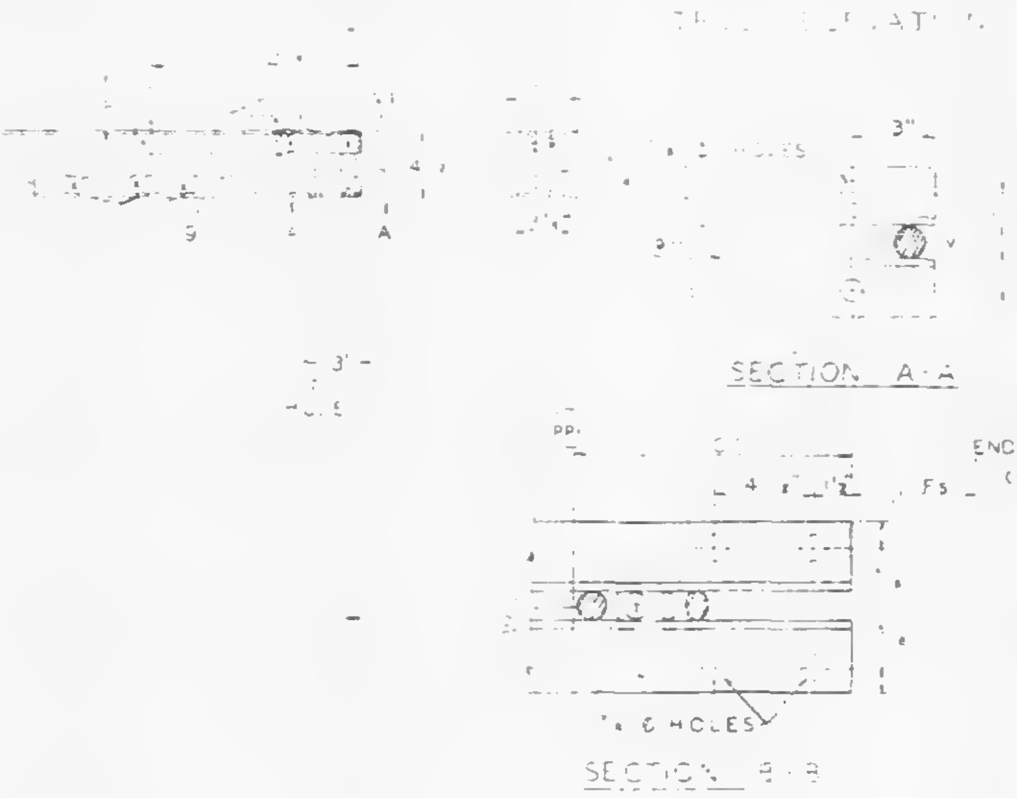
| | | |
|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-8 7-AB[illegible] PLATE [illegible] |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE 8/16/68 | DRAWN BY: [illegible] DATE: FEB. 24, 1968 |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE. | CHECKED BY: [illegible] IN CHARGE OF DATE FEB. 26, 1968 [illegible] |
| DETAILED BY: A. C. WEBER | | FABRICATION [illegible] NO. W.T.C. 221 [illegible] ST210 |



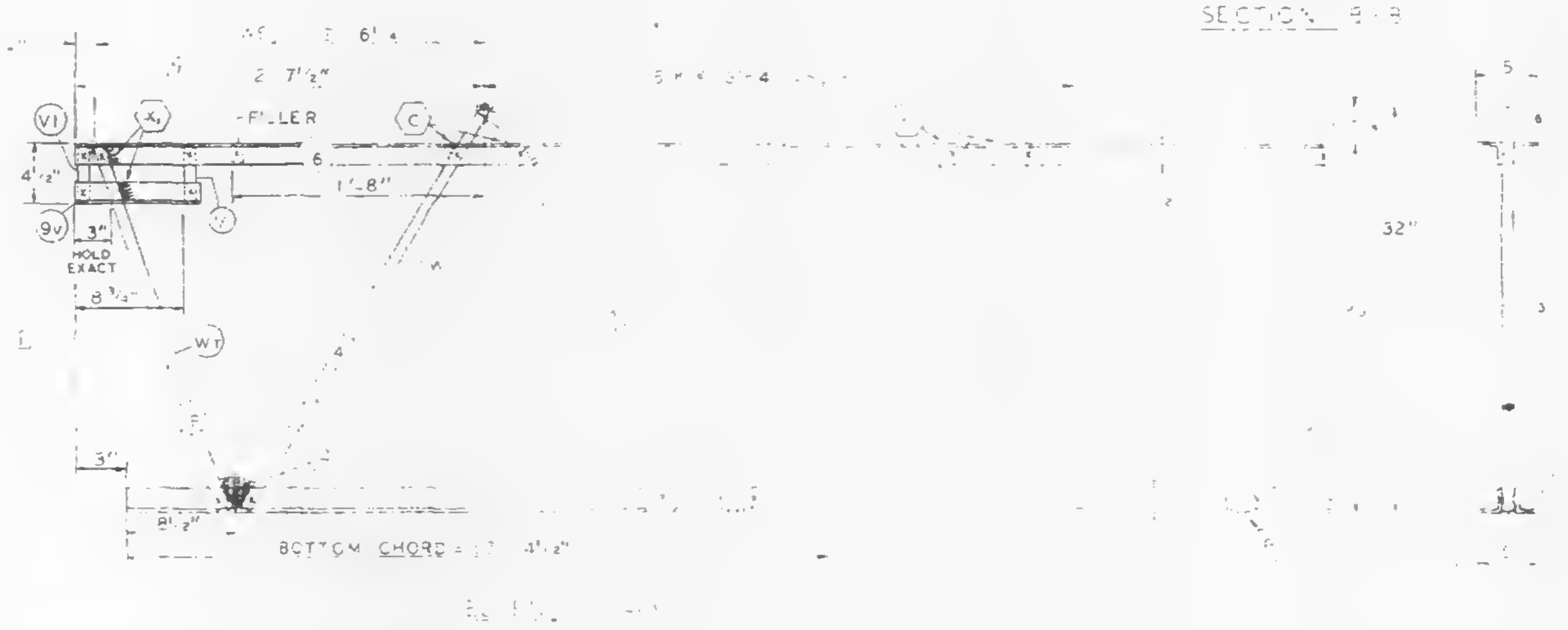
| FABRICATION | | |
|---|---|---|
| CAMBER AT MIDSPAN △ | 1 11/16" | 0" |
| DESIGN DEPTH | [illegible] | 6 3/4" |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | 58'-10" | [illegible] |
| WEB DEPTH | 31 7/8" | [illegible] 1/4" |

ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST292
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R22.





DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223.00



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △2 | 6-27-68 | AS NOTED | T.M.C. |
| △1 | 5-27-68 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-8 | △1 5-10-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-68 |

PAINT

LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | [illegible] | | | ...ATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF [illegible] | [illegible] | [illegible] | [illegible] | MK | TYPE STEEL | SIZE | LENGTH |
| C32T10-5810 | 6 | A242 | 2"x1½"x.25" | 58'-[illegible] | 7 | A242 | [illegible]x1½"x.25" | [illegible]-4½" | [illegible] | A242 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | | — |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T10-5810 | 9 | A242 | 2"x1½"x.25" | [illegible]-10" | 6'-1¼" | | A242 | .98 | 6'-5" | 2 | A242 | .92" | 2'-7⅞" | A242 | .98" | 4⅞" | A242 | [illegible] | 2 9½ | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-5½" | 22'-10¾" | 38'-2½" | 49'-6½" | 5'-2½" |

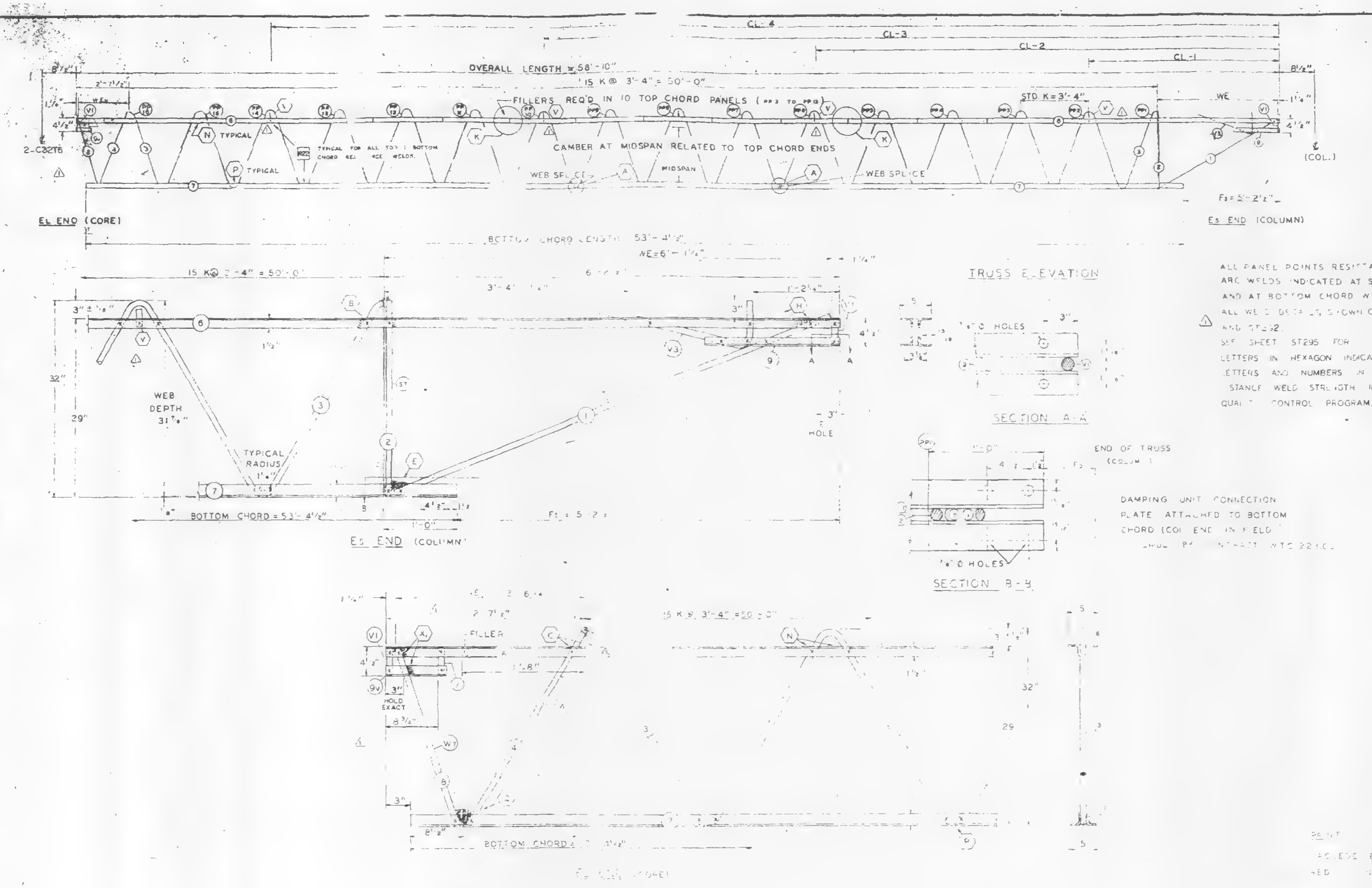
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T10 5810 | 9v | A242 | 2"x1½"x.25" | 10" | 2'-6½" | — | — | — | — | — | — | — | | A242 | .92" | 4⅜" | — | — | — | — | — | — | 4 | A242 | 1 | .92" | 3'-0½" | 8 | A242 | 1 | .92" | 2'-5¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T10 58'-10" OVERALL
WORLD TRADE CENTER TOWERS , A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON , ILLINOIS
DESIGN DRAWING [illegible] PLATE [illegible]
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A DATE 7/5/68
DRAWN BY: [illegible] DATE: FEB. 24, [illegible]
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE ____
CHECKED BY: [illegible] IN CHARGE OF DATE: FEB. [illegible] [illegible] REV.
DETAILED BY A.C. WEBER
FABRICATION W.T.C. 221
SHEET NO. ST210



ALL PANEL POINTS RESISTANCE WELDED (*)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, AND ST292.
SEE SHEET ST295 FOR & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL. i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R22.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL. END) IN FIELD
[illegible] WTC 221 [illegible]

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN ⚠1 | 1¹¹⁄₁₆" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 5-27-68 | AS NOTED | TMC |

REF. DRWG.
7-A81-8 ⚠1 5-10-68
7-A81-52 2-15-68
7-A84-50 & 50.2 10-20-67
7-A83-2 1-3-68
7-A84-50.5 10-20-67
7-A81-53 4-1-68

PAINT
LACLEDE ELECTRICOAT
RED NO. 10051

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ⅝ HOLES | TRUSS DATA | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | | MK | TYPE STEEL | SIZE | LENGTH |
| C32T10-5810 | 6 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | 2"x1½"x.25" | 53'-4½" | 3 | A242 | .92" | 33'-5¾" | 15@3'-4"=50'-0" | 11 | .92" | — | | — | — | — | — |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T10-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .98" | 5'-5" | 2 | A242 | .92" | 2'-7⅞" | A242 | .98" | 4" | A242 | .98" | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | F5 |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

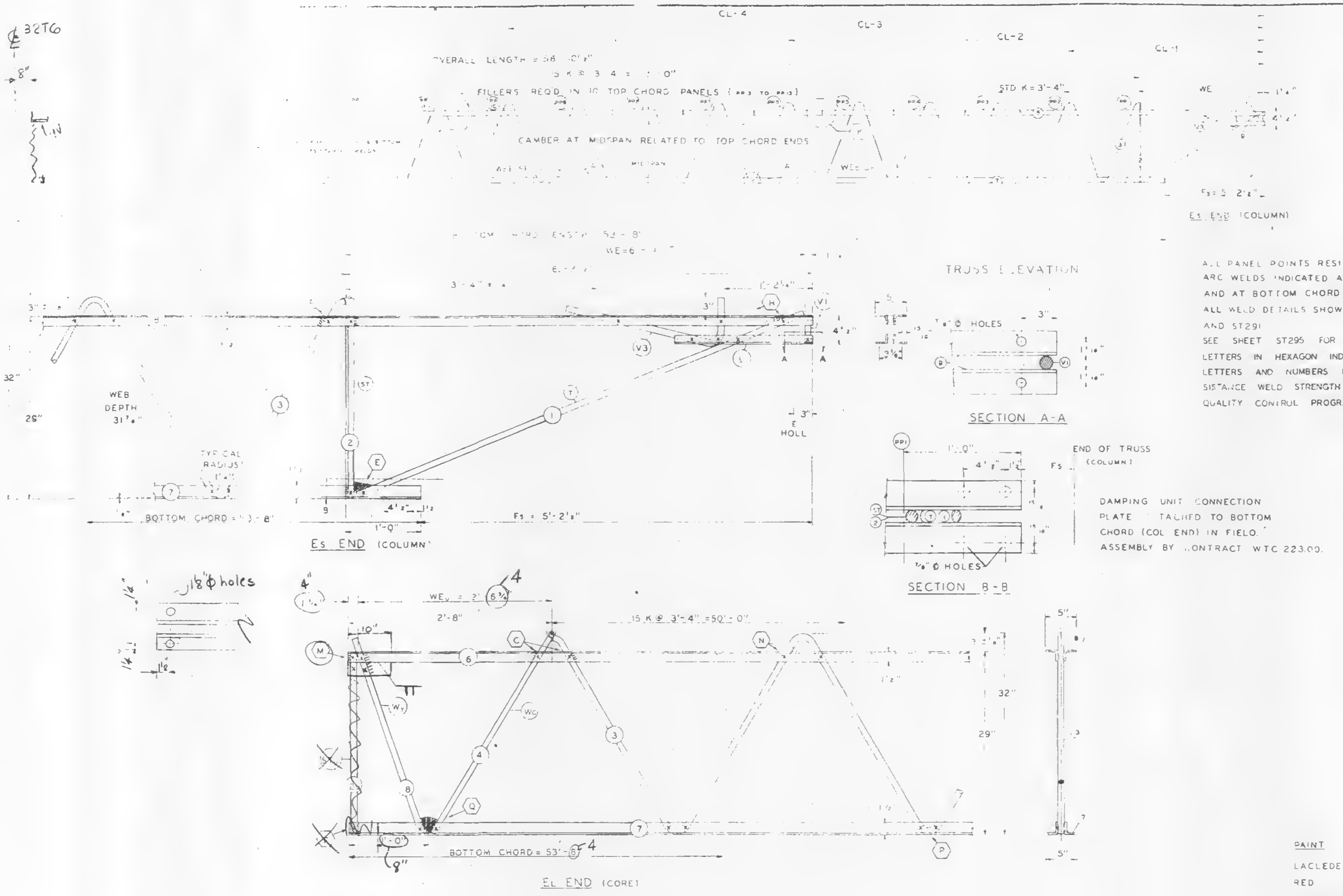
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE v | VERTICAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | STIFFENER MK V1 | | | STIFFENER MK V | | | STIFFENER MK V4 | | | WEB "WC" | | | | | WEB "WT" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T10-5810 | 9V | A242 | 2"x1½"x.25" | 10" | 2'-5¾" | — | — | — | — | | — | — | — | A242 | .62" | 4¾" | — | — | — | — | — | — | 4 | A242 | 1 | .92" | 3'-5½" | 8 | A242 | 1 | .92" | 2'-9" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T10 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A81-8 7-A83-2 PLATE
APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. DATE 6/25/68
DRAWN BY: [illegible] DATE: FEB. 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: [illegible] DATE FEB. [illegible], 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221 [illegible]
SHEET NO. ST210



DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY CONTRACT WTC 223.00.

| FABRICATION REQUIRMENTS | DESIGN | TOLERAN' |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4 | ± 1/4" |
| OVERALL LENGTH | 58'-10½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± |

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R22.

**REF. DRWG.**

| | |
|---|---|
| 7-AB1-8 | 4-1-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB3-2 | 1-3-68 |
| 7-AB1-50.5 | 10-20-67 |
| 7-AB1-53 | 4-1-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | TRUSS DATA | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | MK | TYPE STEEL | SIZE | LENGTH |
| C32T10-58105 | 6 | A242 | 2"x1½"x.25" | 58'-0½" | 7 | A242 | 2"x1½"x.25" | 53' 8" | 3 | A242 | .92" | 93'-5¼" | 15@ 3'-4"=50'-0" | 10 | .92" | — | | — | — | — | — |

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T10-5810S | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .98 | 6'-5" | 2 | A242 | .92" | 2'-7⅞" | A242 | .98" | 4¾" | A242 | .9c | | — | — | — | — |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-5½" | 22'-10½" | 35'-2½" | 49'-6½" | 5'-2½" |

| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "STv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB Wc | | | | | WEB WT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| C32T10-5810S | 9V | A36 | 3x2x. | 0'-10" | 2'-6¾" | 2 | A242 | .92" | 2'-4¼" | | — | — | — | — | — | — | — | — | — | — | — | — | 4 | A242 | 1 | .92" | 3'-5½" | 8 | A242 | | .92" | 2'-9" |

cut

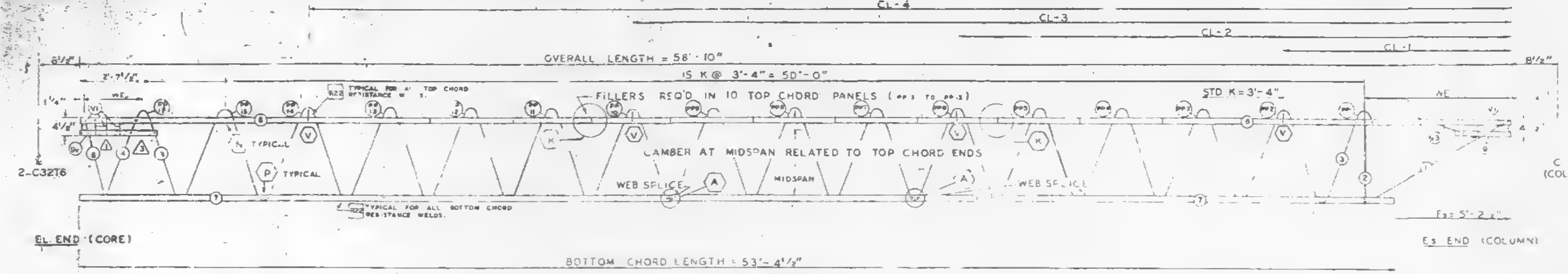
8/26/68 SK,

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

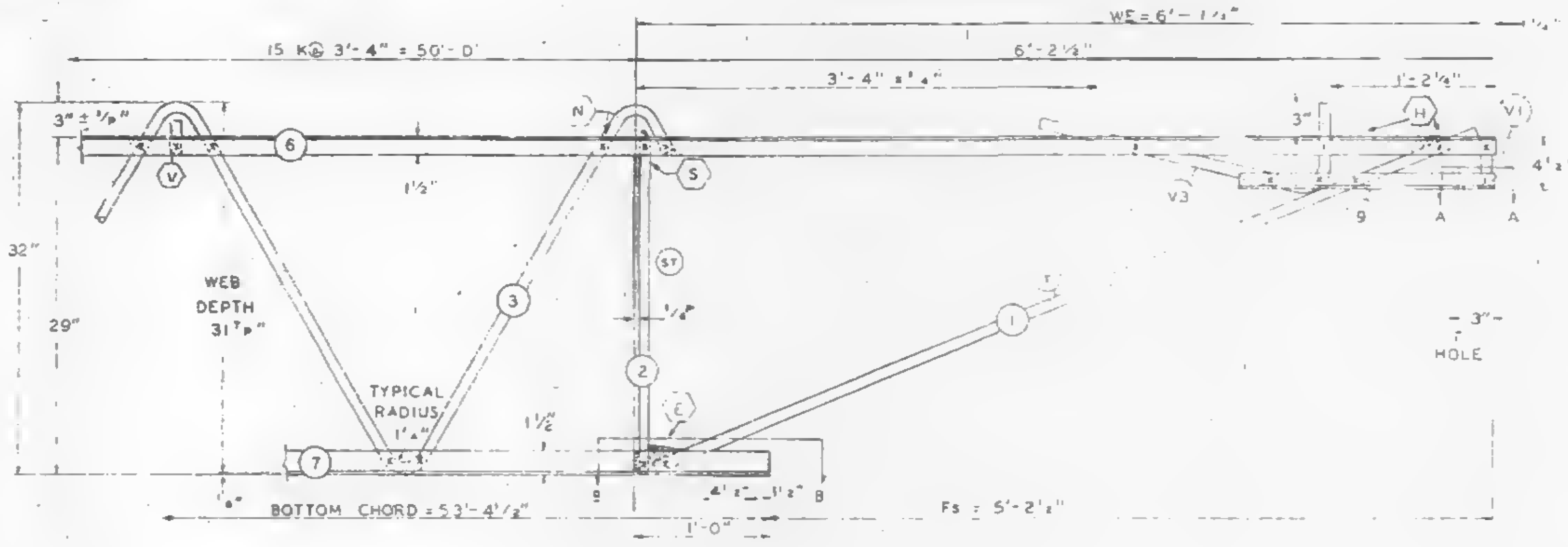
FLOOR TRUSS C32T10 58'-10½" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

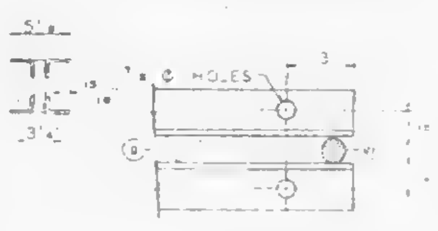
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-8 7-AB3-2 PLATE | |
| APPROVED FOR FABRICATION BY _ FOR P.O.N.Y.A | DATE | DRAWN BY L.R.<br>DATE FEB. 24, 1968 | |
| APPROVED FOR FABRICATION BY ___ FOR FABRICATOR | DATE | CHECKED BY J.R. PAUL<br>DATE FEB. 24, 1968 | IN CHARGE OF PROD. DEV |
| DETAILED BY A. C. WEBER | | FABRICATION CONT. NO. WTC 221 | SHEET NO ST210 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
8½"
15 K @ 3'-4" = 50'-0"
FILLERS REQ'D IN 10 TOP CHORD PANELS
STD K = 3'-4"
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
2-C32T6
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
C (COL.)
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 53'-4½"

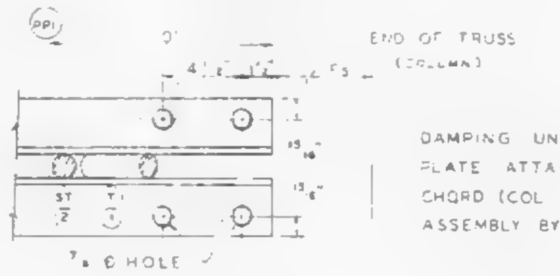
TRUSS ELEVATION



Es END (COLUMN)



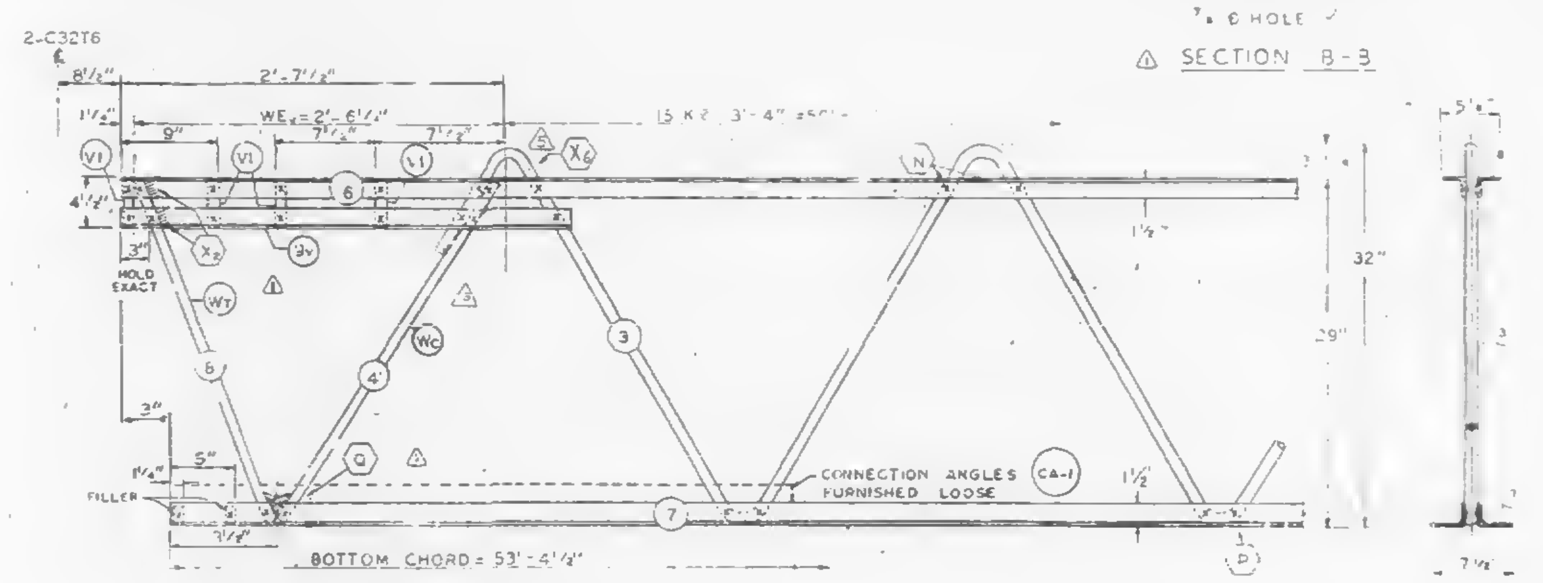
SECTION A-A



SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (A)
ARC WELDS INDICATED ... DED AREAS
AND AT BOT ... WEB SPLICES
ALL WELD ... SHEETS ST290, ST291,
AND ST292
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R22.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY



EL END (CORE)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1⁵⁄₁₆" | ± ⅜" |
| DESIGN DEPTH | 29" | ± ¼ |
| PANEL "K" | 3'-4" | ± ¼" |
| OVERALL LENGTH | 58'-10" | 0" |
| WEB DEPTH | 31 7/8" | ⅛" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 5 | 5-13-70 | AS NOTED | G.D.C. |
| 4 | 5-8-70 | AS NOTED | G.D.C. |
| 3 | 5-1-70 | AS NOTED | G.D.C. |
| 2 | 12-3-68 | GENERAL | G.D.C. |
| 1 | 7-1-68 | AS NOTED | [illegible] M.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-9 | 7-22-68 |
| 7-AB1-52 | 7-15-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50,5 | 10-20-67 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10061

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK. | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" C-C HOLES | CONNECTION FILLERS NO. | DIA | LENGTH | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T11-5810 | 6 | A242 | 2"×1½"×.25" | 58'-10" | 7 | A242 | 2"×1½"×.25 | 53'-4½" | 3 | A242 | .92 | 94'-4⅛" | 15 @ 3'-4" = 50'-0" | 12 | .92 | — | 4 | .92 | 3" | — | — | — | — |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WE | DIAGONAL "T" STRUT MK. | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK. | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | MK. V3 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T11-5810 | 9 | A242 | 2"×1½"×.25" | 1'-10" | 6'-1¼" | 1 | A242 | .92 | 6'-5" | 2 | A242 | .92 | 2'-4⅞" | A242 | .92 | 4⅜" | A242 | .92 | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½ | 35'-2½ | 49'-6½ | 5'-2½ |

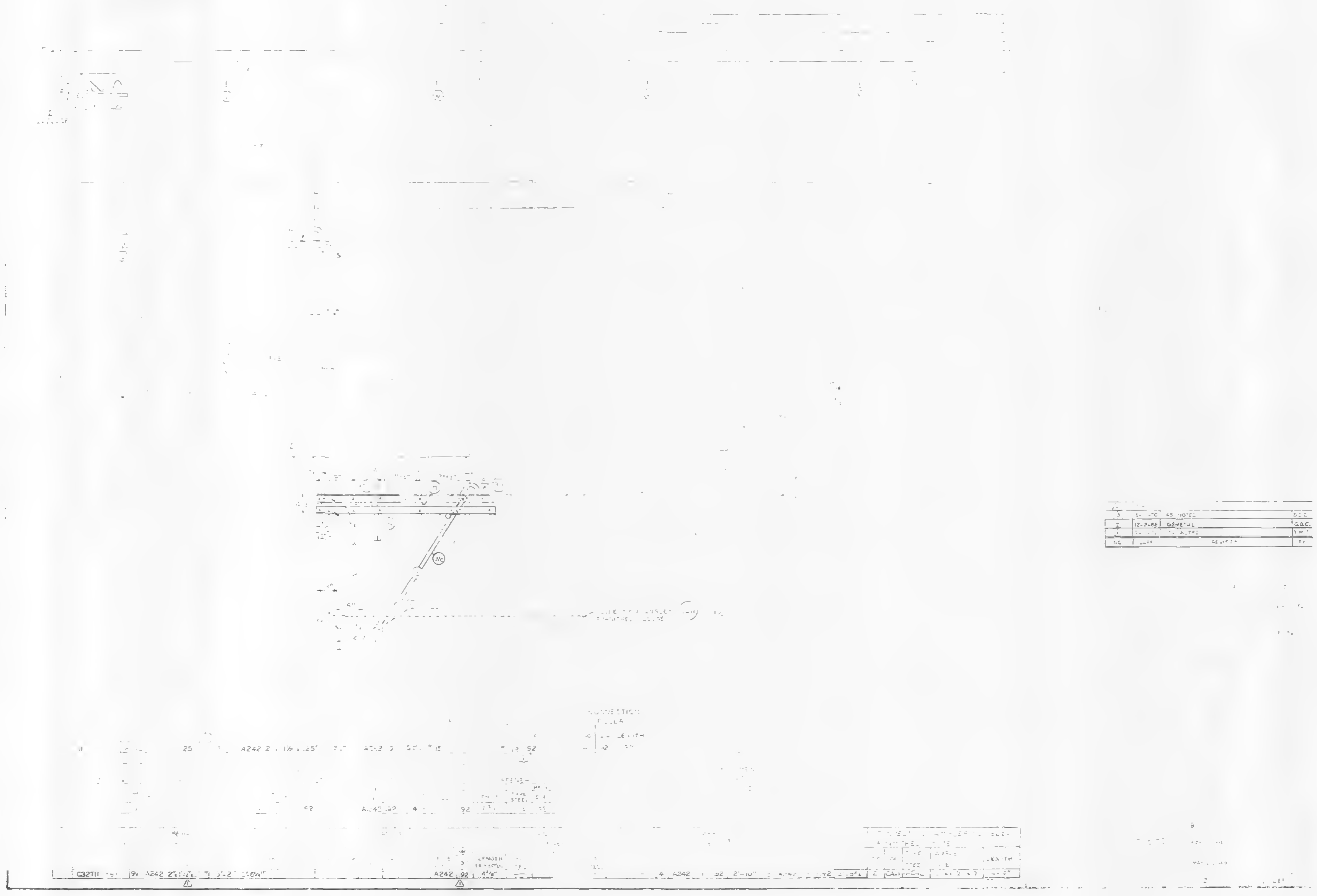
CORE END

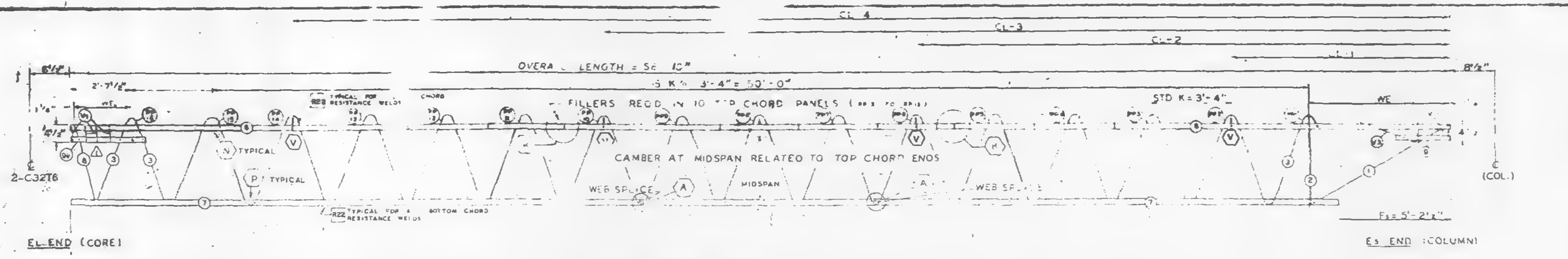
| EL-END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEv | VERTICAL "STv" STRUT MK. | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK. | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. TYPE STEEL | DIA | LENGTH | MK. V2 DIA | LENGTH | MK. V4 TYPE STEEL | DIA | LENGTH | WEB "Wc" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK. | TYPE STEEL | PCS | DIA | LENGTH | CONNECTION ANGLES (2 PEC'D) FURNISHED LOOSE NO | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T11-5810 | 9v | A242 | 2"×1½"×.31" | 3'-2" | 2'-6¼" | — | — | — | — | — | — | — | — | A242 | .92 | 4⅜" | — | — | — | — | — | 4 | A242 | 1 | .92 | 2'-10" | 8 | A242 | 1 | .92 | 2'-5⅝" | 2 | CA-1 | A242 | 2×½×3½ | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

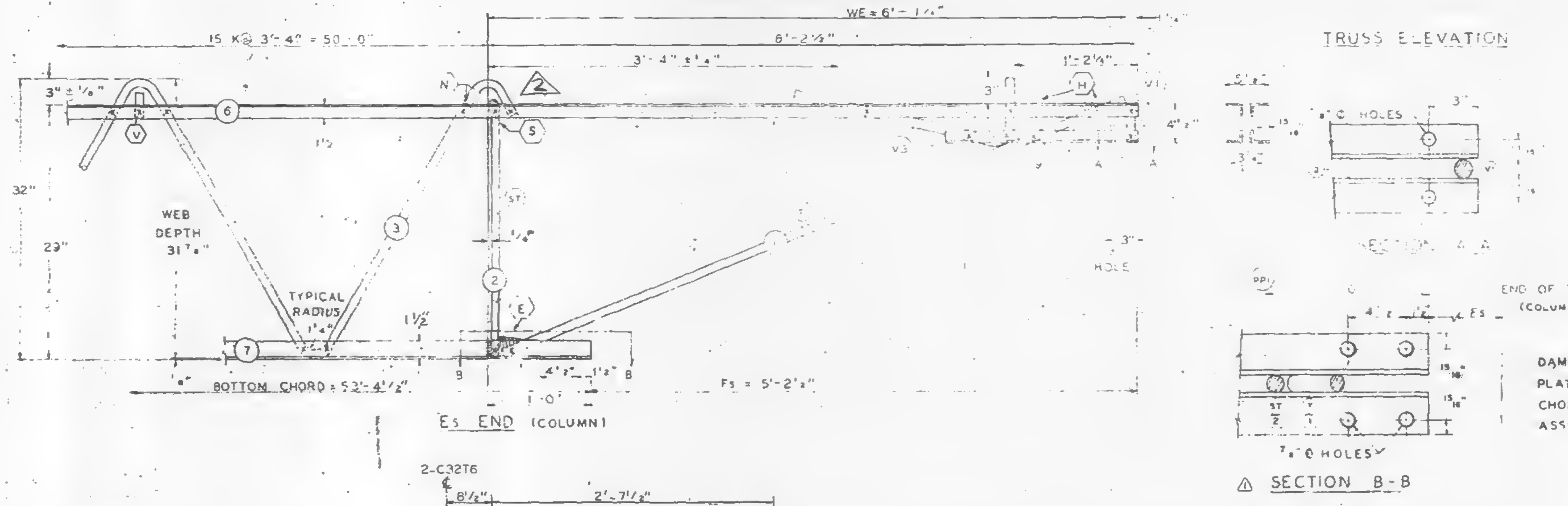
FLOOR TRUSS C32T11 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-9 7-AB3-2 | PLATE |
| APPROVED FOR FABRICATION BY FOR PONYA | DATE 7/11/70 | DRAWN BY: L.J.<br>DATE: MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY J.R. MAIN<br>DATE MAY 27, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST211 |


A242
92
LENGTH
C32T11
2'-10"
4⁵⁄₈"
12-2-66
GENERAL
G.O.C.
AS NOTED

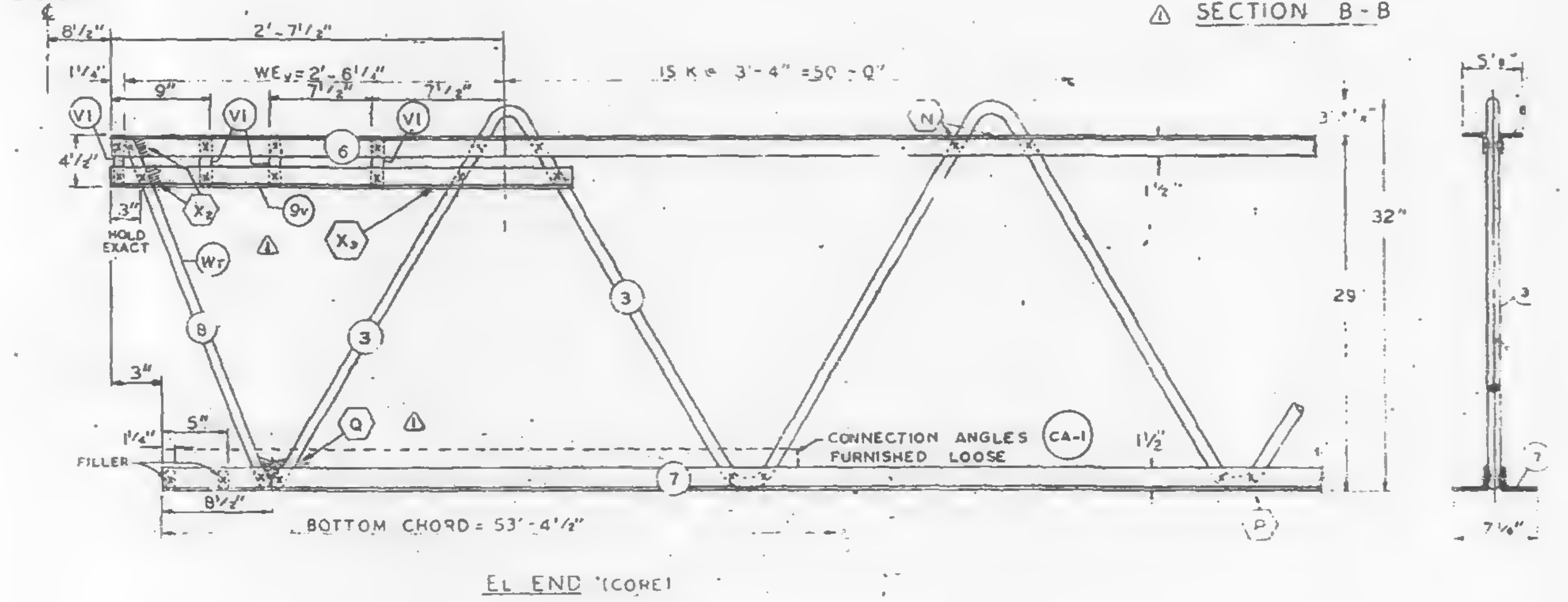


## TRUSS ELEVATION



DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY [illegible] 223 [illegible]

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST29[illegible], ST291,
AND ST292.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e., R22.



EL END (CORE)

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 5/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 4" |
| PANEL "K" | 3'-4" | ± 4" |
| OVERALL LENGTH | 58 | ± 3/8" |
| WEB DEPTH | 3 | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 12-3-68 | GENERAL | R.D.C. |
| 1 | 7-1-68 | AS NOTED | T.M.G. |

**REF. DRWG.**

| | |
|---|---|
| 7-AB1-9 | 7-22-68 |
| 7-AB1-52 | 2-3-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB4-50.5 | 10-20-67 |
| 7-AB1-53 | 7-22-68 |
| | 7-22-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 19001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T11-5810 | 6 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | 2"x 1½"x .25 | 53'-4½" | 3 | A242 | .92 | 97'-0" | 15½@ 3'-4" = 51'-8" | 12 | .92 | — | 4 | .92 | 3" | - | — | — | — |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T11-5810 | 9 | A242 | 2"x1½"x.25" | 1'-10" | 6'-1¼" | 1 | A242 | .92 | 6'-5" | 2 | A242 | .92 | 2'-4½" | A242 | .92 | 4⅝" | A242 | .92 | 2'-9½" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½ | 36-2½ | 49'-6½" | 5'-2½ |

**CORE END**

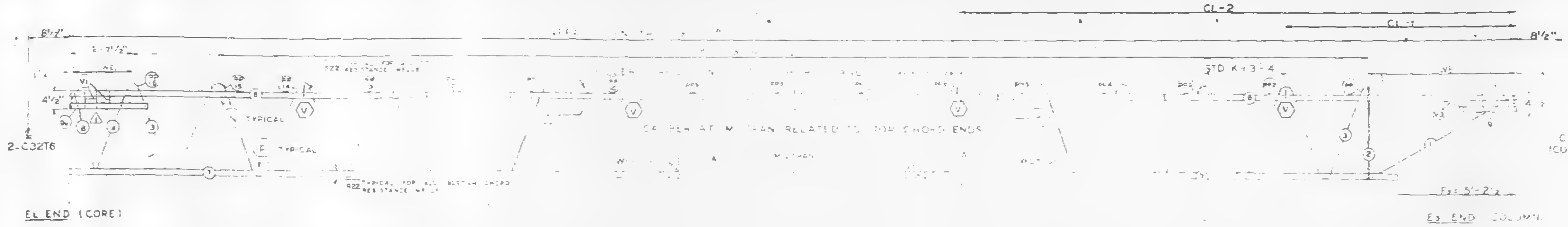
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "ST1" STRUT | | | | VERTICAL "ST" STRUT | | | | STIFFENER MK V1 | | | STIFFENER MK V2 | | | STIFFENER MK V4 | | | WEB "Wc" | | | | | WEB "W1" | | | | | CONNECTION ANGLES (2 REQ'D) FURNISHED LOOSE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (4 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | NO | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T11-5810 | 9v | A242 | 2"x1½"x.3" | 3'-2" | 2'-6¼" | - | — | — | — | — | — | — | — | A242 | .92 | 4⅜" | — | — | — | — | — | — | — | — | — | — | — | 8 | A242 | 1 | .92 | 2'-5¾" | 2 | CA-1 | A242 | 2"x1½" x 31 | 4'-4" |

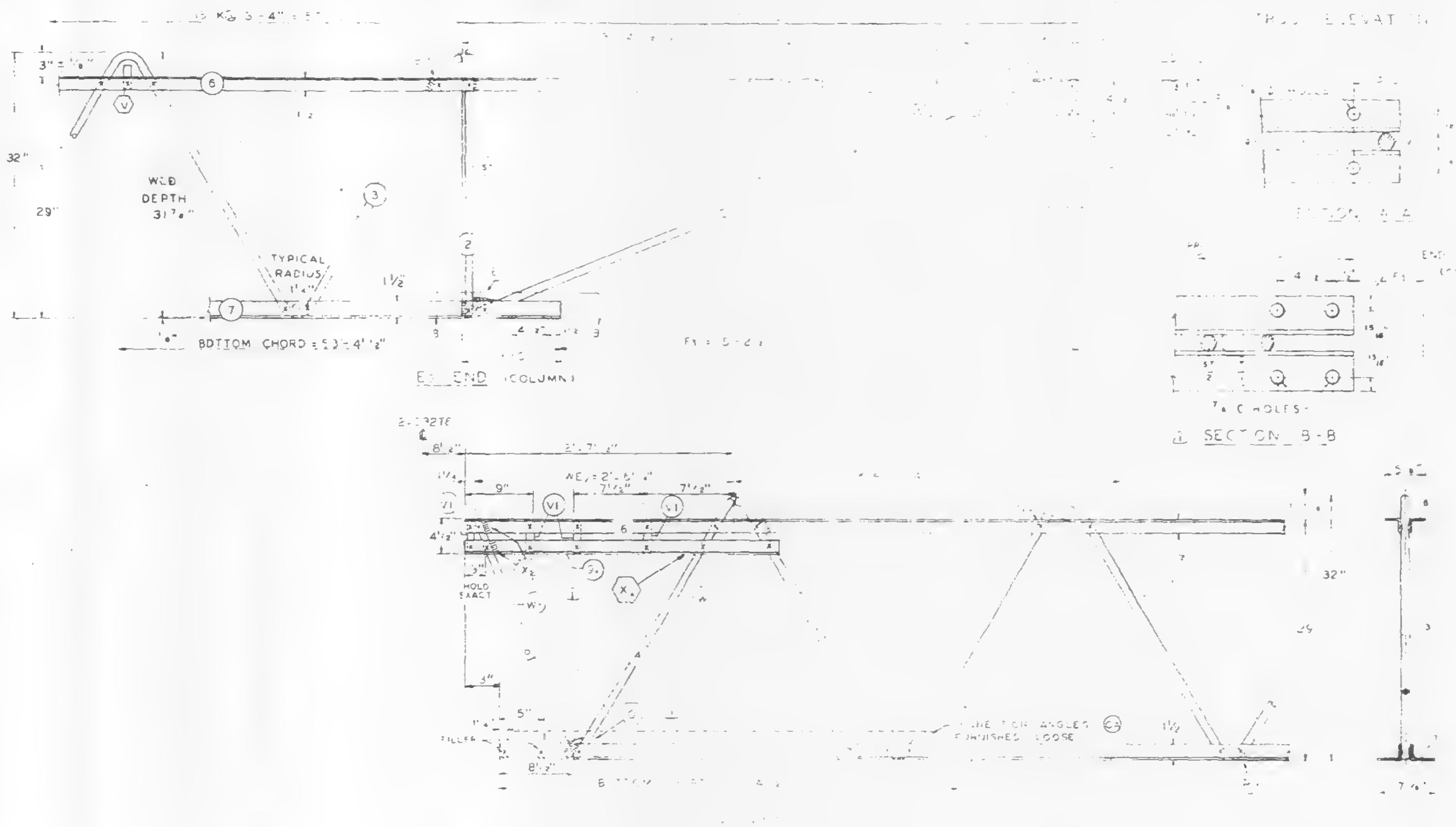
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T11 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-9 7-AB3-2 PLATE | |
| APPROVED FOR FABRICATION James W. L. FOR P.O.N.Y.A | DATE 12/9/68 | DRAWN BY: L.S. DATE MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY ___ FOR FABRICATOR | DATE | CHECKED BY J.S. BAUA DATE MAY 27, 1968 | IN CHARGE OF PROD. DE. |
| LACLEDE STEEL CO. | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO ST211 |





ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM THIRD WEB SPLICES (▬)
ST290, ST291, AND ST292
DETAILS
INDICATE WELD DETAIL (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM R22

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY

**FABRICATION REQUIRMENTS**

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 5/16 | 8 |
| DESIGN DEPTH | 29 | 4 |
| PANEL | 3'-4 | |
| OVERALL LENGTH | | 8" |
| WEB DEPTH | 31 | 4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 7-1-68 | AS NOTED | T.M.C. |

REF. DRWG
7-AB1-9 4-1-68
7-AB1-52 5-15-68
7-AB4-50 & 50.2 10-20-67
7-AB3-2 1-3-68
7-AB4-50.5 10-20-
7-AB1-53 4-1-68

PAINT
LACLEDE ELECTROCOAT
REF. NO. 5001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | | | | | | | | CONNECTION FILLERS | | | PLATE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | | | | NO. | DIA | LENGTH | TYPE STEEL | SIZE | LENGTH |
| C32T11-5810 | 6 | A242 | 2"x1½"x.25 | 58'-10" | 7 | A242 | 2"x 1½"x.25 | 53'-4½" | | A242 | .92 | | 4 | 2 | .92 | | .92 | | | | |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | STIFFENER | | | | | | GUSSET STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T11-5810 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | 1 | A242 | .92 | 6'-5" | 2 | A242 | .92 | 2'-7⅞" | A242 | .92 | 4⅞" | A242 | .92 | 2'-9 | | | | |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 5'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

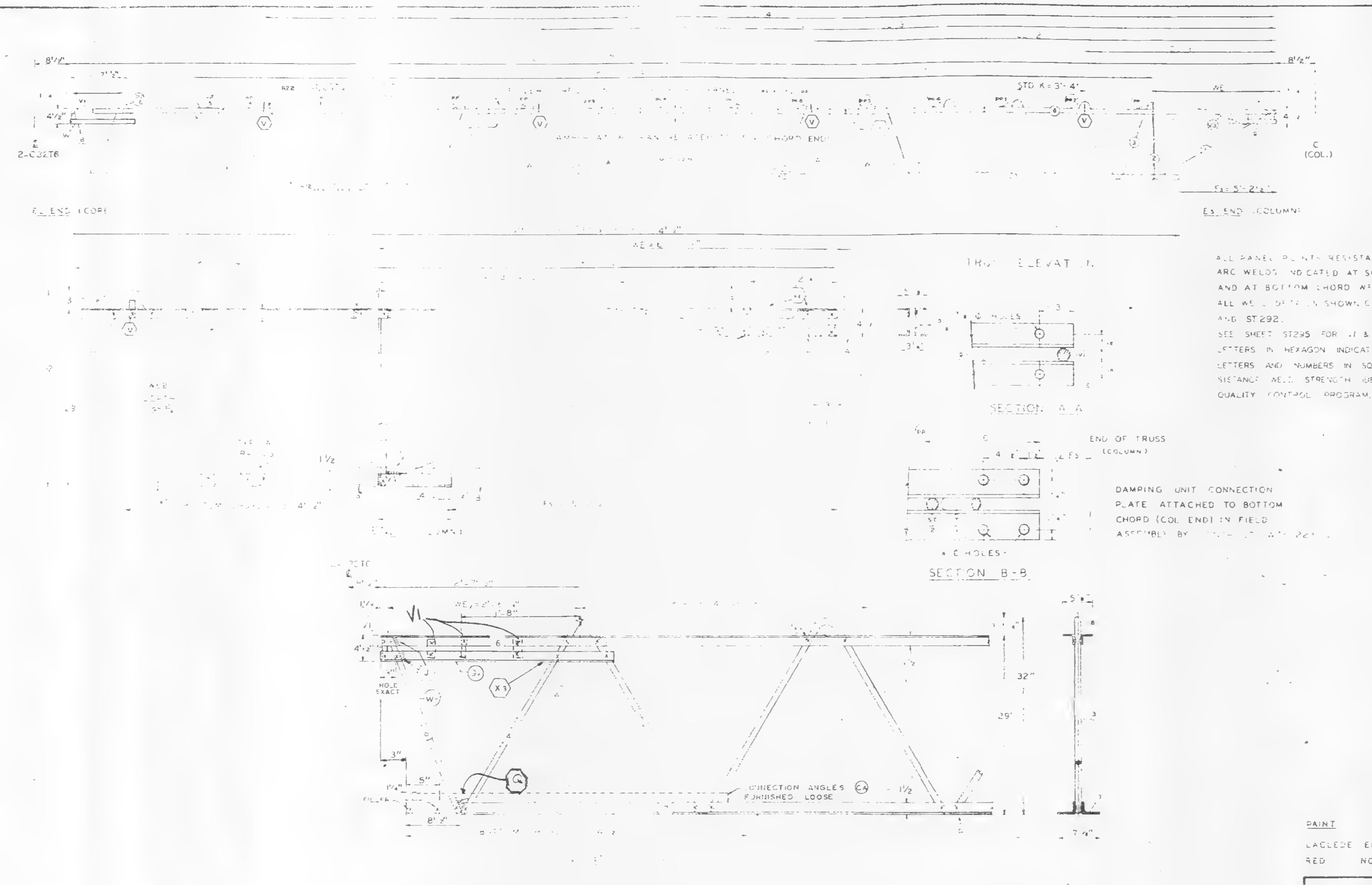
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | VERTICAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | WEB "WT" | | | | | CONNECTION ANGLES (2 REQ'D) FURNISHED LOOSE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (4 REQ'D) | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH | NO | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T11-5810 | 9v | A242 | 2"x1½"x.3" ⚠1 | 3'-2" | 2'-6¼" | - | — | | - | | — | — | - | A242 | .92 | 4⅜" ⚠1 | — | — | — | — | - | — | 4 | A242 | 1 | .92 | 3'-0½" | 8 | A242 | 1 | .92 | 2'-5¾" | 2 | CA | A242 | 2"x1½"x 31 | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T11 58'-10" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 7/9/68
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DETAILED BY A.C. WEBER
DESIGN DRAWING NO 7-AB1-9 7-AB3-2 PLATE
DRAWN BY L.B. DATE MAY 27, 1968
CHECKED BY J.R. BLUM DATE MAY 27, 1968
IN CHARGE OF PROD. DEV
FABRICATION CONT. NO. WTC 221
SHEET NO. ST211



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
AND ST292.
SEE SHEET ST295 FOR [illegible] & [illegible] DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e., R22.

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL. END) IN FIELD
ASSEMBLY BY [illegible]

FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 5/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58' | ± 3/8" |
| WEB DEPTH | 8" | ± 1/8" |

REF. DRWG.

7-ABI-9
7-ABI-52
7-AB4...
7-AB3-4
7-AB4...
7-ABI-53

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL 4 | Fs |
|---|---|---|---|---|
| 9'-[illegible] | 27'-0½" | 15'-2½" | 49'-6½" | 5'-2½" |

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
☐ [illegible]
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
6/27/68 SK

COLUMN END

| TRUSS DESIGNATION | BEARING ANGLES | WE | DIAGONAL ST STRUT | VERTICAL ST STRUT | STIFFENER | | |
|---|---|---|---|---|---|---|---|
| C32T[illegible] | [illegible] | [illegible] | .92 | A242 .92 2'-[illegible] | .92 4" | A242 .92 2'-9 | |

CORE END

| TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WE | VERTICAL ST STRUT MK V1 TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|
| C32TII | 5 | A242 | 2"x1½"x.25" (.31) | 3'-2" | 6'4" | A242 | .92 | 4¾" |

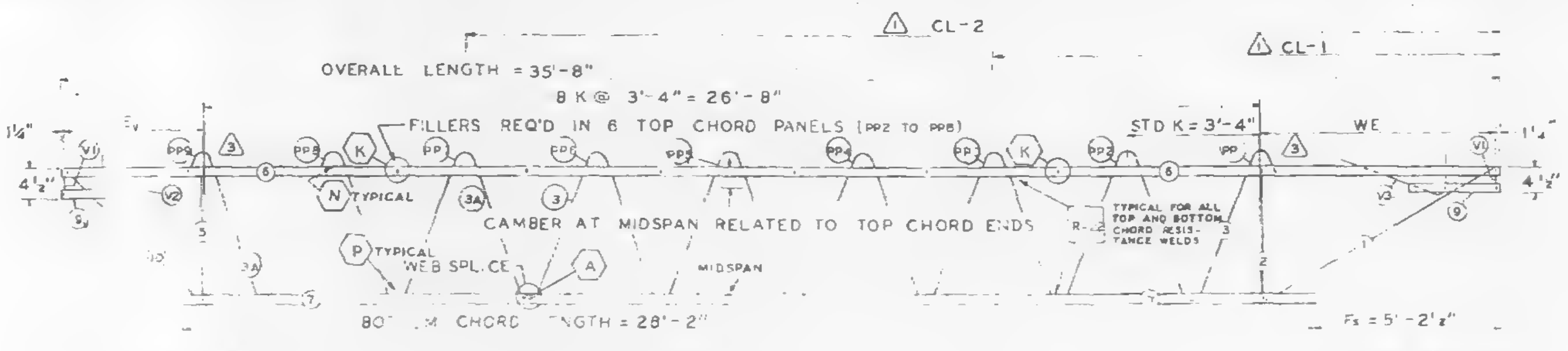
| WEB "WC" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WT" MK. | TYPE STEEL | PCS | DIA | LENGTH | CONNECTION ANGLES (2 REQ'D) FURNISHED LOOSE NO | MK. | TYPE STEEL | ANGLE SIZE. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | A242 | 1 | .92 | 3'-0½" | 8 | A242 | 1 | .92 | 2'-5¾" | 2 | CA | A242 | 2"x1½"x.31 | 4'-4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

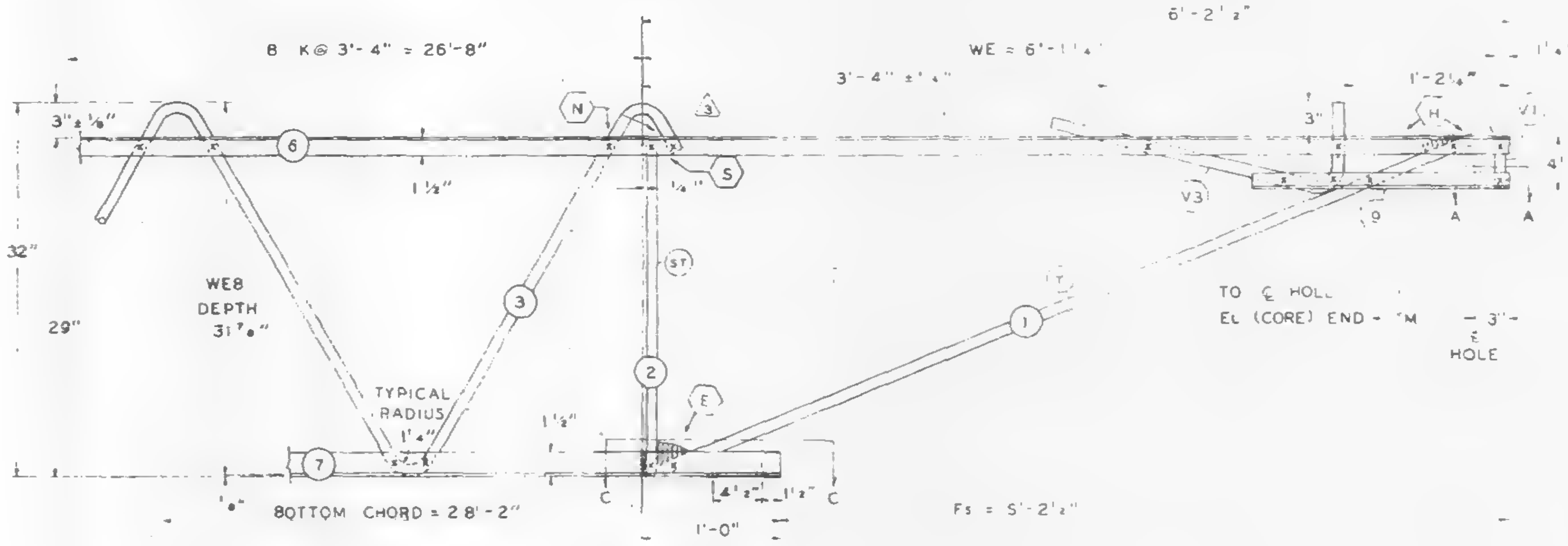
FLOOR TRUSS C32TII 58'-10" OVER ℄
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

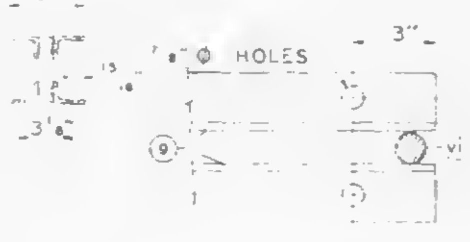
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-ABI-9 7-AB3-2 PLATE | |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY: L.G. DATE. MAY 27, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: J.R. PAUL DATE MAY 27, 1968 | IN CHARGE PROD. DE. |
| LACLEDE STEEL CO DETAILED BY A. C. WEBER | | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST211 |



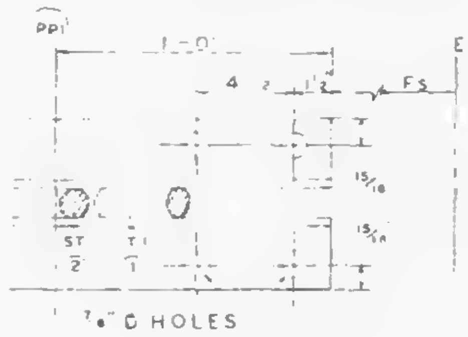
TRUSS ELEVATION



Es END (COLUMN)

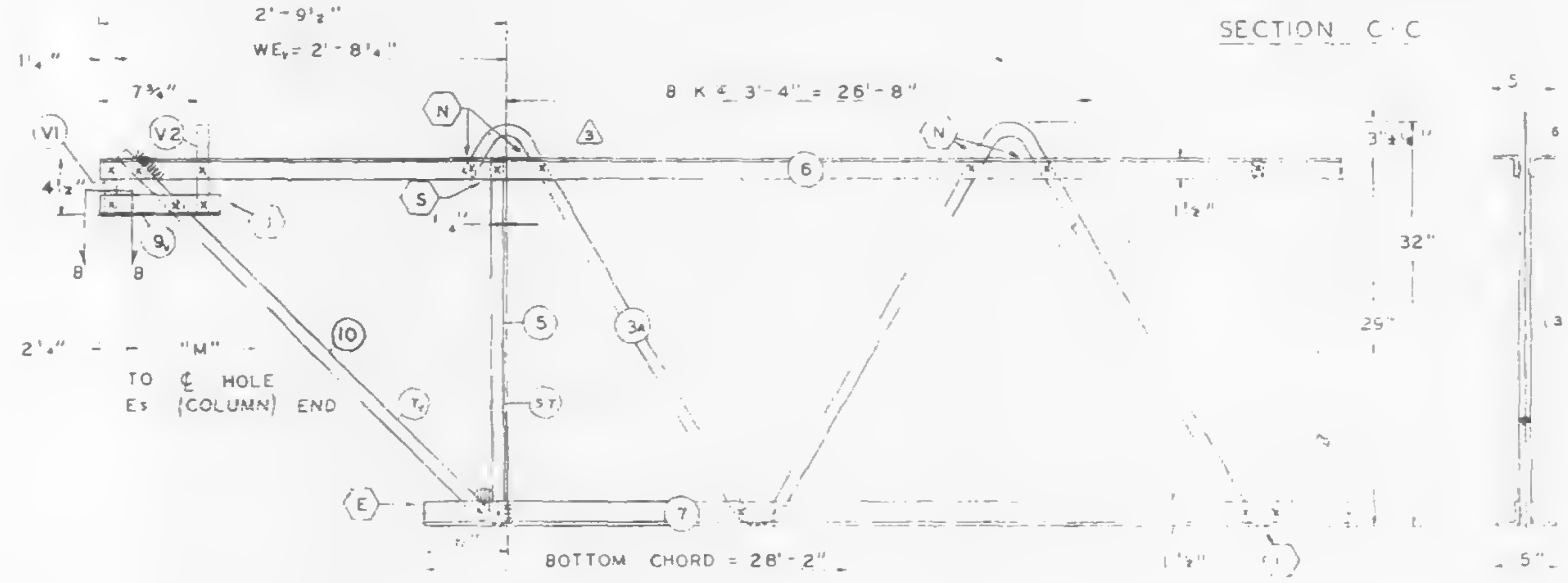


SECTION A-A

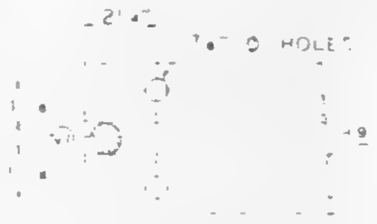


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)



SECTION B-B

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1/4" | - 1/4"<br>+ 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | ± ⅛" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED ×1. ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬). ALL WELD DETAILS SHOWN ON SHEETS ST29D AND ST291.

SEE SHEET ST295 FOR V1, V2, & V3 DETAILS. LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., ⟨A⟩. LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-22.

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 11-20-68 | AS NOTED | G.D.C. |
| 2 | 6-20-68 | CAMBER, END STIFFENER, WEB | T.M.C. |
| 1 | 3-19-68 | WELD DETAIL, CL DIMINSIONS, CAMBER | J.R.P. |

3 REF DRWGS.

| | |
|---|---|
| 7-AB1-11 | 7-22-68 |
| 7-AB1-52 | 7-15-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB1-53 | 10-15-68 |
| 7-AB4-SD5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 8001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | FILLER | | C/C HOLES | TRUSS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | |
| C32T12-358 | 6 | A24[illegible] | 2"×1½"×.025 | 35'-8" | 7 | A242 | 2×1½×.025 | 28'-2" | 3A<br>3 | A242<br>A242 | 0.98<br>0.92 | 16'-0¼"<br>34'-8½" | 2½ - 3'-4" = 8'-4"<br>5½ - 3'-4" = 18'-4" | 6 | .092 | 35'-2¾" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL ST STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T12-358 | 9 | A24[illegible] | 2"×1½"×.025 | [illegible]10" | 6'-1¼" | | A242 | .098 | 6'-5 | 2 | A242 | .092 | 2'-4⅞ | A242 | .093 | 4⅜ | A242 | .099 | 2'-9½ |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL Tv STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER | | | | | | | | | WEB | | | | | WEB | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T12-358 | 9 | A242 | 2"×1½"×.025 | 10" | 2'-8¼" | 10 | A242 | .098 | 3'-6¼ | 5 | A242 | .098 | 2'-4⅛" | A242 | .098 | 4⅜ | A242 | .098 | 7⅜ | | | | | | | | | | | | | |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

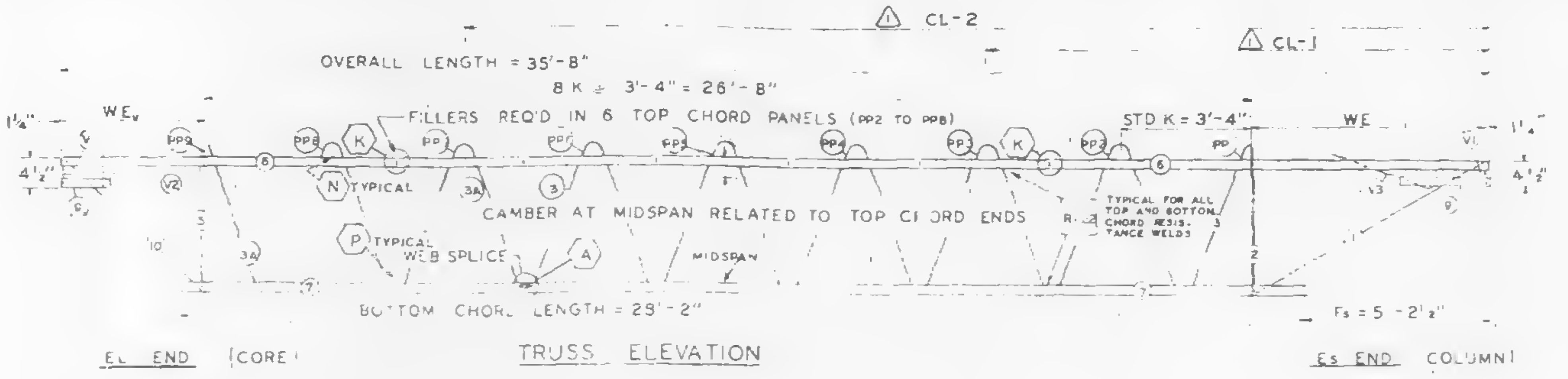
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| [illegible] | 2[illegible]½" | | | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T12 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-[illegible] | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. | DATE 9/9/68 | DRAWN BY [illegible] DATE FEB 24, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY J.R. PAUL DATE FEB 24 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A C WEBER | | FABRICATION CONT NO WTC 221 | SHEET NO ST212 |

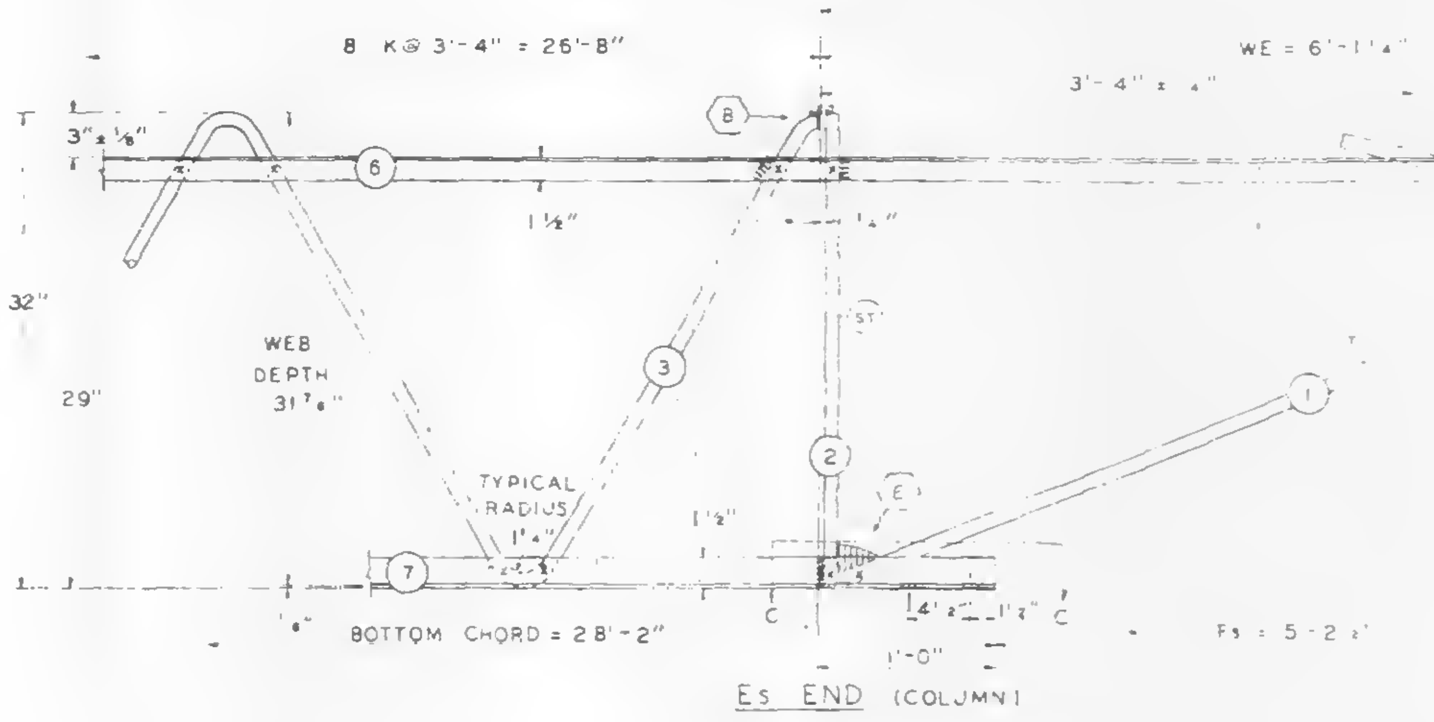
| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1/4" | 1/4"<br>-3/8" |
| DESIGN DEPTH | 3" | ± 1/4" |
| PANEL "K" | -4" | ± 1/4" |
| OVERALL LENGTH | 5'-8" | ± /8 |
| WEB DEPTH | 31 7/8" | /4" |


CL-2
CL-1
OVERALL LENGTH = 35'-8"
8 K @ 3'-4" = 26'-8"
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO PP8)
STD K = 3'-4"
WEv
WE
1¼"
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL FOR ALL TOP AND BOTTOM CHORD RESISTANCE WELDS
P TYPICAL WEB SPLICE
A
MIDSPAN
BOTTOM CHORD LENGTH = 29'-2"
Fs = 5'-2½"

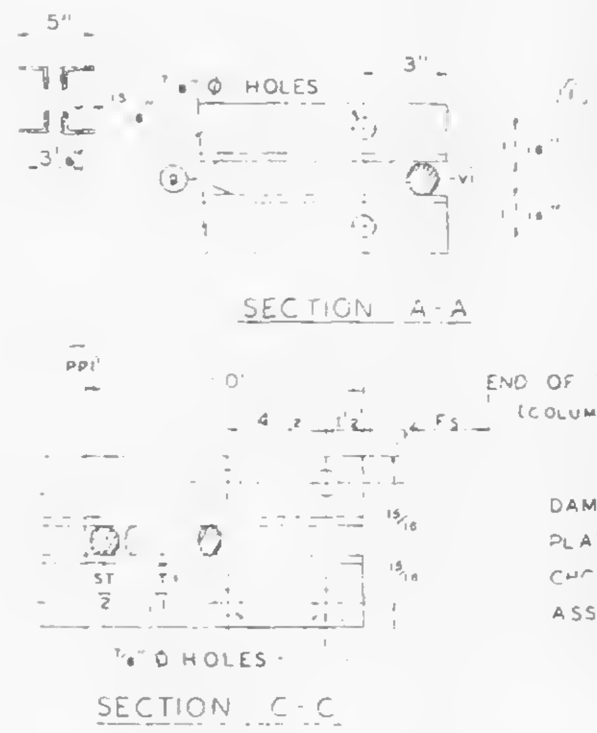
El END (CORE) TRUSS ELEVATION Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED. ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.

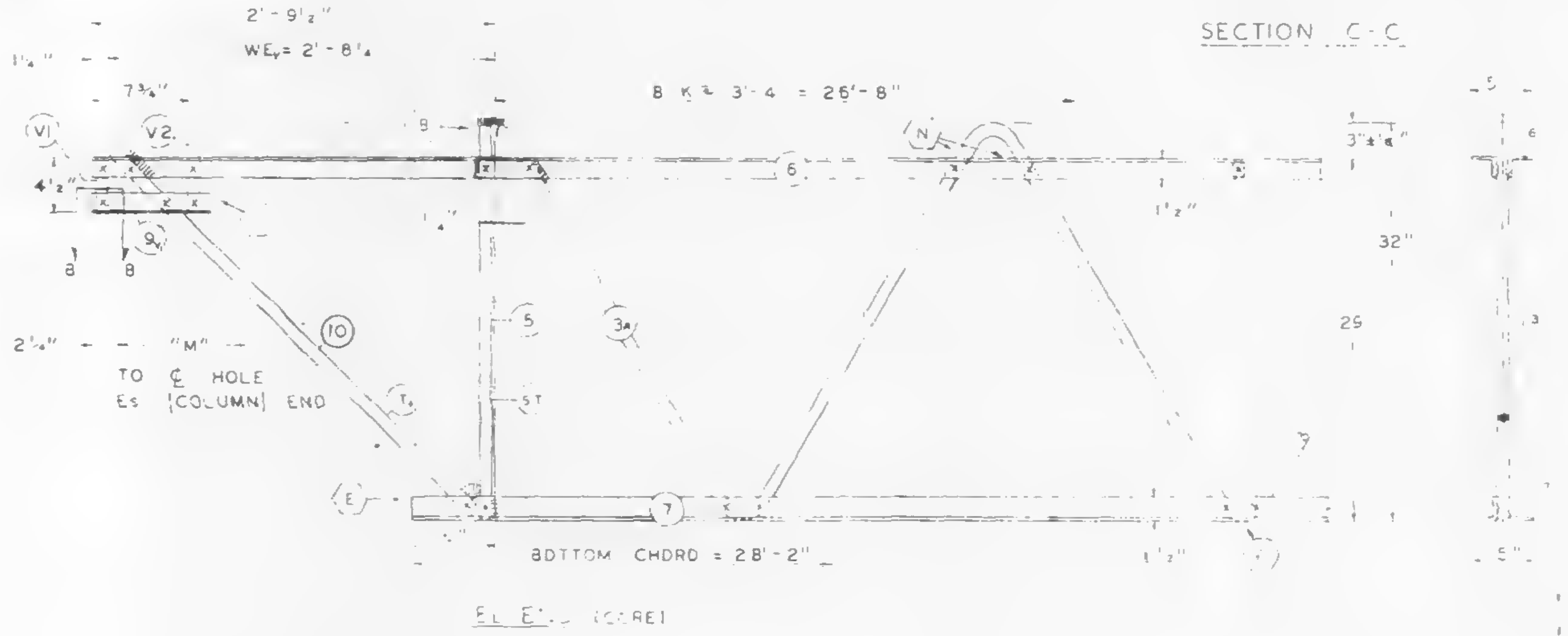
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS. LETTERS IN HEXAGON INDICATE WELD DETAILS. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. R-22.



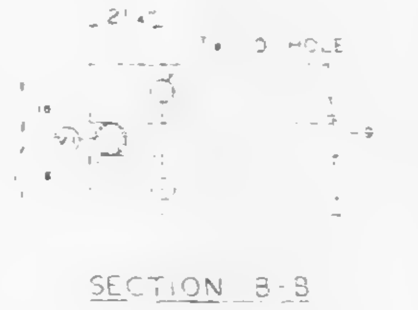
Es END (COLUMN)



DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD COL END IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



El END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 6-20-68 | CAMBER, END STIFFENER, WEB | T.M.C. |
| 1 | 3-19-68 | WELD DETAIL, CL DIMINSIONS, CAMBER | J.R.P. |

REF DRWGS

| | |
|---|---|
| 7-AB1-1 | 4-1-58 |
| 7-AB1-52 | 2-5-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-AB1-53 | 4-1-58 |
| 7-AB4-50.5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 21

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | |
| C32T12-358 | 6 | A242 | 2"x1½"x.025 | 35'-8" | 7 | A242 | 2"x1½"x.025 | 28'-2" | 3A<br>3 | A242<br>A242 | 0.98<br>0.92 | 15'-6⅞"<br>34'-3⅛" | 2½ @ 3'-4" = 8'-4"<br>5½ @ 3'-4" = 18'-4" | 6 | 0.92 | 35'-2¾" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T12-358 | 9 | A242 | 2"x1½"x.025 | 1'-10" | 6'-1¼" | 1 | A242 | .098 | 6'-5" | 2 | A242 | .092 | 2'-7⅞" | A242 | .093 | 4¾ | A24 | .098 | 2'-9½" |

CORE END

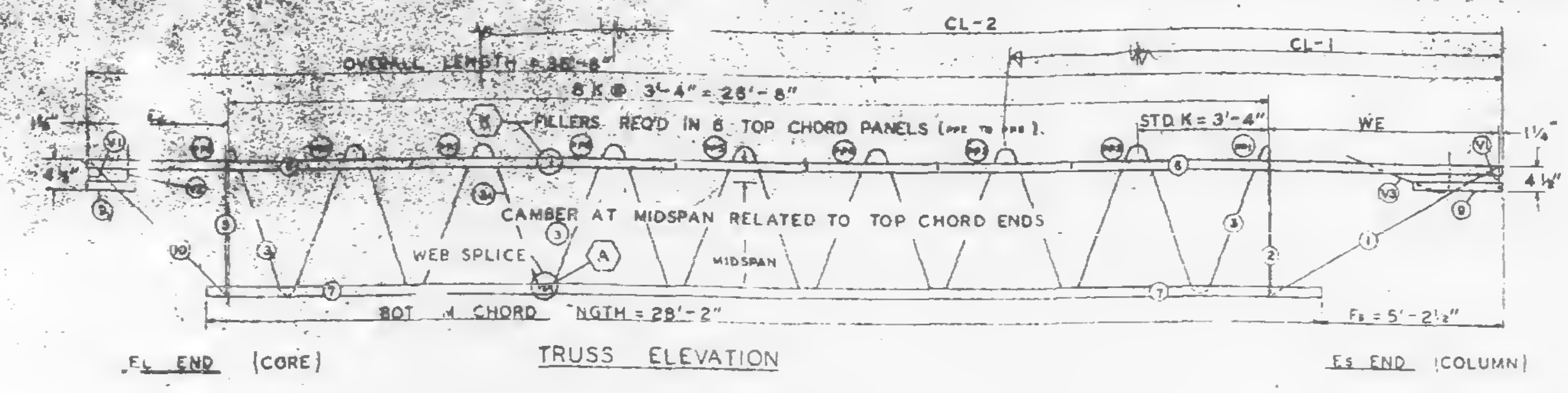
| El END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "ST" STRUT | | | | STIFFENER MK V1 | | | STIFFENER MK V2 | | | STIFFENER MK V4 | | | WEB "DS10" | | | | | WEB "DS5" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T12-358 | 9 | A242 | 2"x1½"x.025 | 10" | 2'-8¼" | 10 | A242 | .098 | 3'-6¼" | 5 | A242 | .098 | 2'-7⅞" | A242 | .098 | 4½" | A242 | .098 | 7¾ | — | — | — | — | — | — | — | — | — | — | — | — | — |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 26'-2½" | — | — | 5'-2½" |

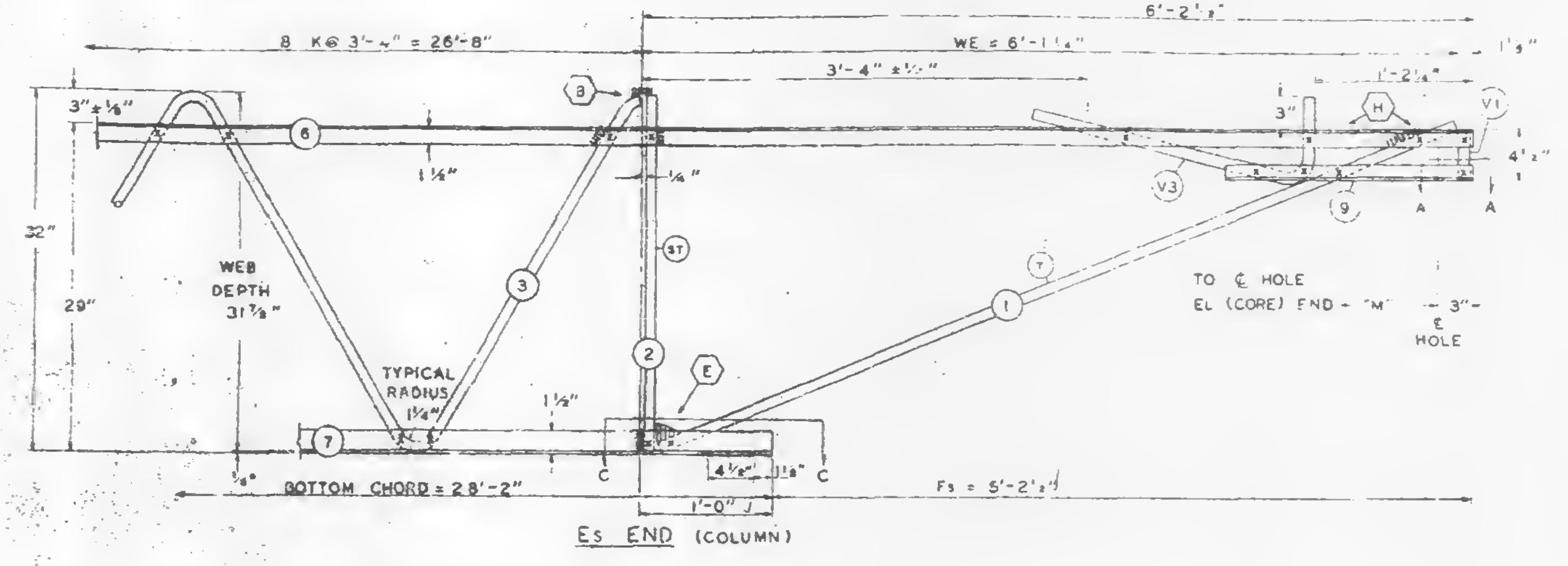
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T12 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

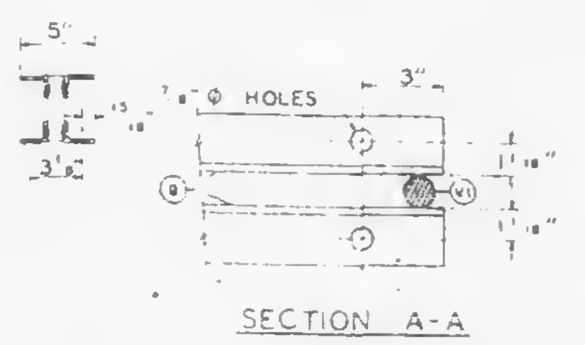
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-11 PLATE
APPROVED FOR FABRICATION BY JW FOR PONYA DATE 6/25/68
DRAWN BY Lm DATE FEB 24, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY J.B. PAUL DATE FEB 24, 1968
IN CHARGE OF PROD DEV
DETAILED BY A C WEBER
FABRICATION CONT NO W T C 221
SHEET NO. ST212



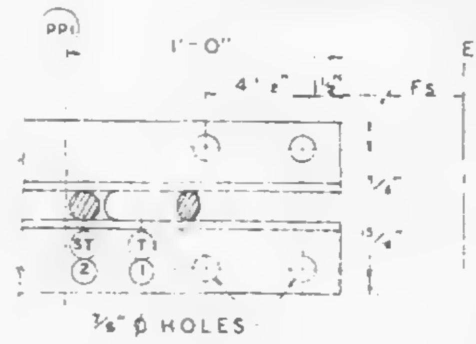
TRUSS ELEVATION



Es END (COLUMN)

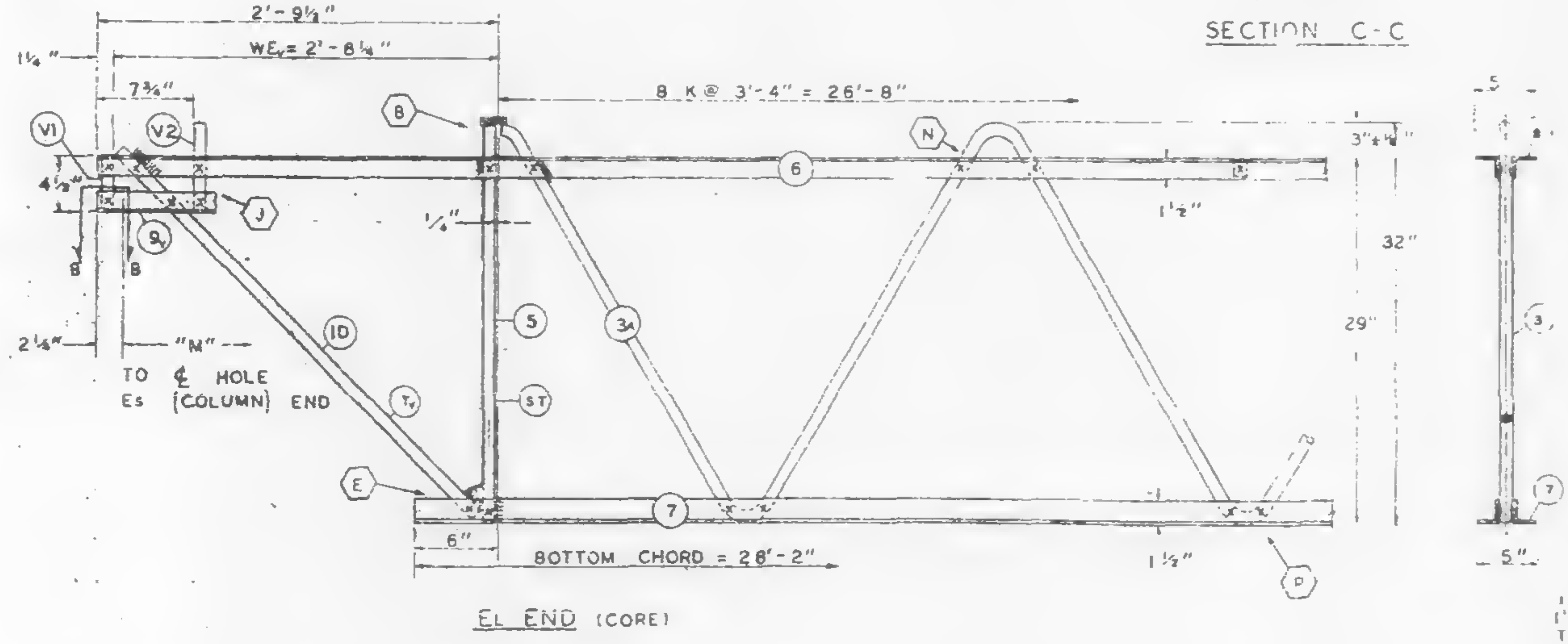


SECTION A-A

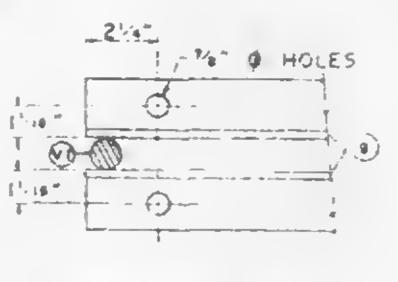


SECTION C-C

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT WTC 223 DO.



EL END (CORE)



SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (×).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290
AND ST291.
BOXED LETTERS INDICATE WELD DETAIL, i.e., (A).

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1/2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± /4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35' | ± 3/8" |
| WEB DEPTH | 3" | ± 1/ " |

SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
✕
DUE 6/2/68

REF DRWGS.

| | |
|---|---|
| 7-A81-11 | 2-15-68 |
| 7-A81-52 | 2-15-68 |
| 7-AJ4-50 & 50.2 | 10-20-67 |
| 7-A81-53 | 1-3-66 |
| 7-A84-505 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | TRUSS | DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO | DIA. | | | |
| C32T12-35B | 6 | A242 | 2"×1½"×0.25 | 35'-8" | 7 | A242 | 2"×1½"×0.25 | 28'-2" | 3A<br>3 | A242<br>A242 | 0.92<br>0.92 | 13'-8½"<br>34'-3½" | 2½ @ 3'-4" = 8'-4"<br>5½ 3'-4" = 18'-4" | 6 | 0.92 | 35'-2¾" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH |
| | C32T12-35B | 9 | A242 | 2"×1½"×0.25 | 1'-10" | 6'-1¼" | 1 | A242 | 0.98 | 6'-5" | 2 | A242 | 0.98 | 2'-7⅞" | A242 | 0.98 | 4¾" | A242 | 0.98 | 2'-9½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "DS10" | | | | | WEB "DS5" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA. | LENGTH |
| | C32T12-35B | 4 | A242 | 2"×1½"×0.25 | 10" | 2'-8¼" | 10 | A242 | 0.98 | 1'-6¼" | 5 | A242 | 0.98 | 2'-4½" | A242 | 0.98 | 4⅝" | A242 | 0.96 | 7¾" | — | — | — | — | — | — | — | — | — | — | — | — | — |

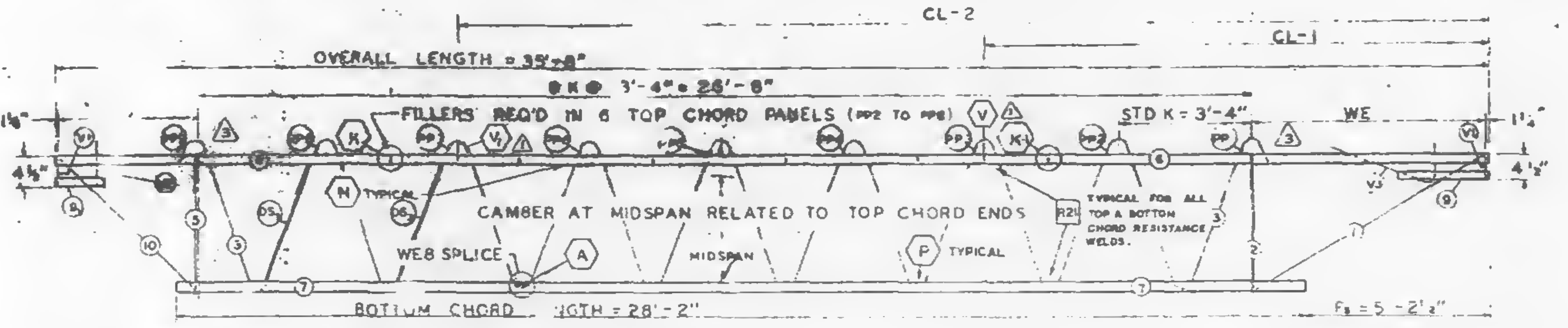
| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | — | — | 5'-2½" |
| 12'-10½ | | | | |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T12 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

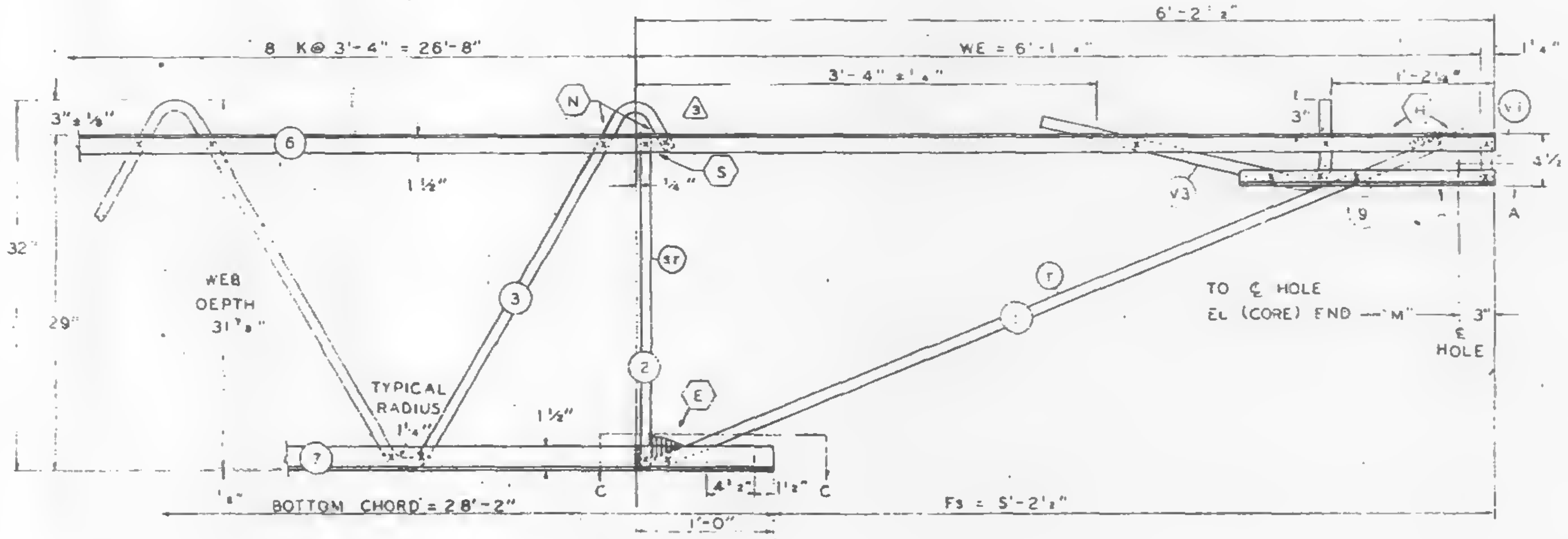
| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-11 | PLATE |
| APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. | DATE | DRAWN BY: L.S.<br>DATE: FEB. 24, 1968 | |
| APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR | DATE. | CHECKED BY: L.S. PAUL<br>DATE: FEB. 24, 1968 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO.<br>DETAILED BY. A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST212 |


CL-2
CL-1
OVERALL LENGTH = 35'-8"
8 K @ 3'-4" = 26'-8"
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO PP8)
STD K = 3'-4"
WE
1½"
4½"
1¼"
4½"
V1
V3
PP
PP2
K
V
T
N TYPICAL
DS
WEB SPLICE
A
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
P TYPICAL
R21 TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS.
BOTTOM CHORD LENGTH = 28'-2"
Fs = 5'-2½"

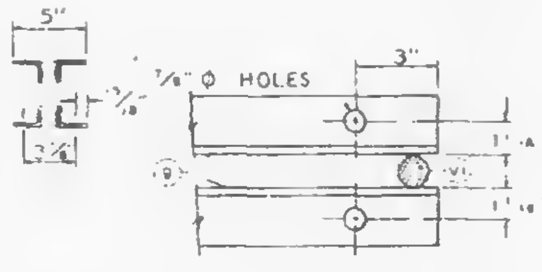
EL END (CORE) — TRUSS ELEVATION — Es END (COLUMN)

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN ⚠ | 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | ± 3/8" |
| WEB DEPTH | 31 7 | ± 1/4" |

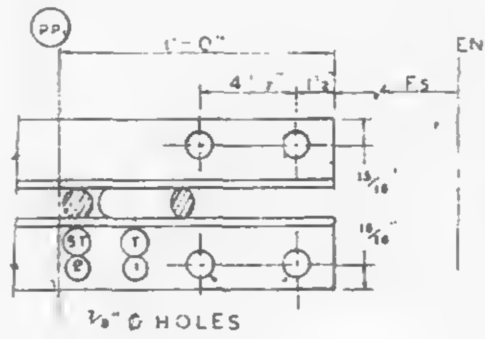
ALL PANEL POINTS RESISTANCE WELDED.
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291 ⚠ AND ST292.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.



Es END (COLUMN)

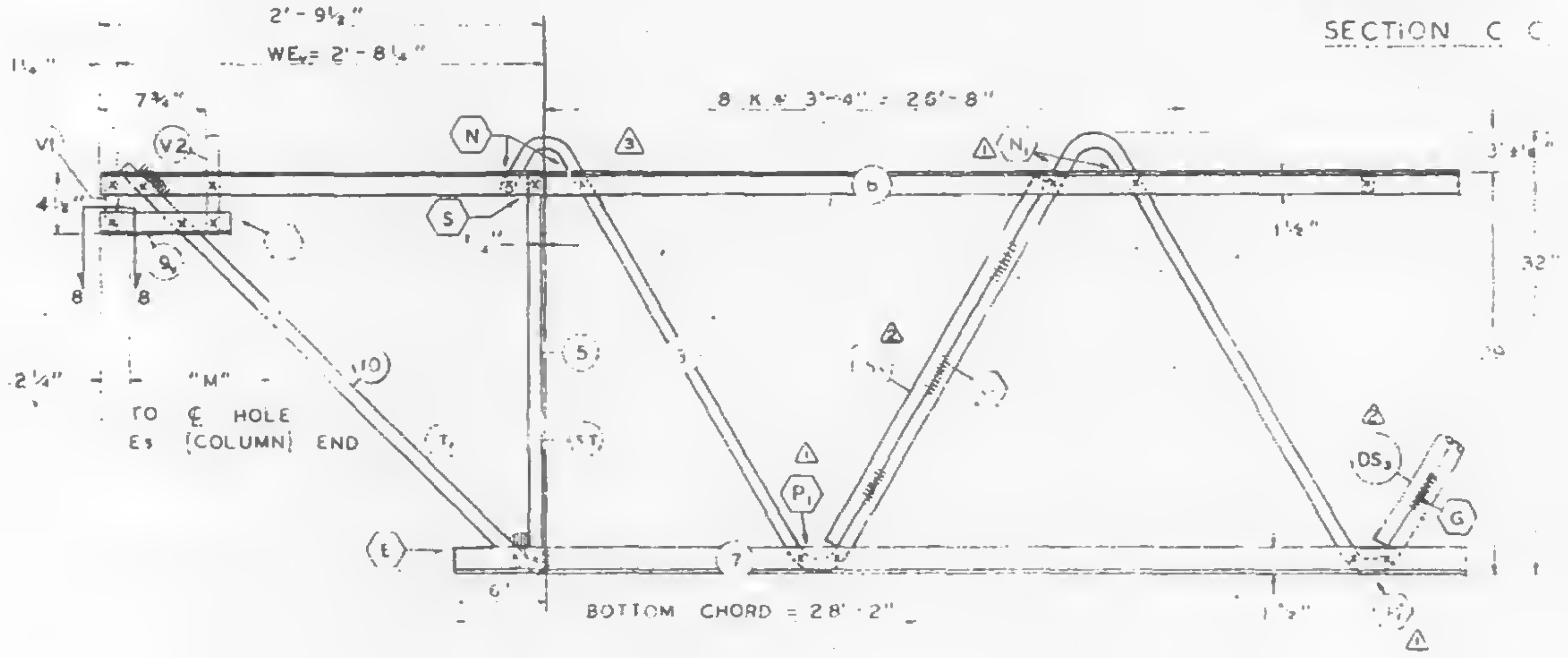


SECTION A-A

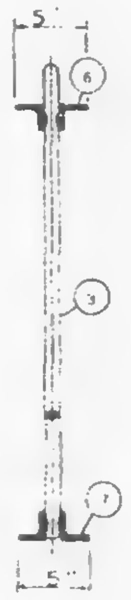


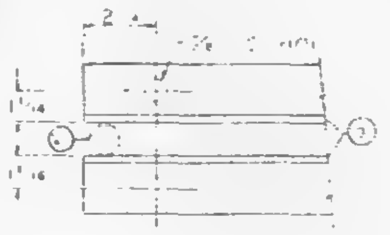
SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.DD.



EL END (CORE)





SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠3 | 11-20-68 | AS NOTED | G.D.C. |
| ⚠2 | 7-23-68 | MARK DS2 LENGTH | T.M.C. |
| ⚠1 | 6-22-68 | AS NOTED | T.M.C. |

⚠3 REF DRWGS.

| | |
|---|---|
| 7-AB1-12 | 7-22-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB4-50 5 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
REF NO

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" HOLES | CONNECTION FILLERS ⚠ | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | ⚠3 LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH |
| C32T13-358 | 6 | A242 | 2"×1½"×0.25 | 35'-8" | 7 | A242 | 2"×1½"×.025 | 28'-2" | [illegible] | A242 | 098 | 50'-8¾" | 8 @ 3'-4" = 26'-8" | 6 | 0.98 | 35'-2¾" | 2 | .98 | 3" |

COLUMN END

| Fs END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | ⚠3 LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T13-358 | 9 | A242 | 2"×1½"×.025 | [illegible] | 6'-1¼" | | A242 | 098 | 6'-5" | 2 | A242 | 098 | 2'-4⅜" | A242 | 098 | 4⅜" | A242 | 098 | 2'-9½" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "DS10" | | | | | WEB "DS5" | | | | | DOUBLE STRUT "DS2" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | ⚠3 LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LGT. | MK | PCS | TYPE STEEL | DIA | ⚠2 LENGTH |
| | C32T13-358 | 9v | A242 | 2"×1½"×.025 | 10" | 2'-8¼" | 0 | A242 | 098 | 3'-6¼" | 5 | A242 | 098 | 2'-4⅞" | A242 | 098 | 4⅜" | A242 | 098 | 7⅜" | — | — | — | — | — | — | — | — | — | — | — | — | — | DS2 | 2 | A242 | .75 | 2'-6¾" |

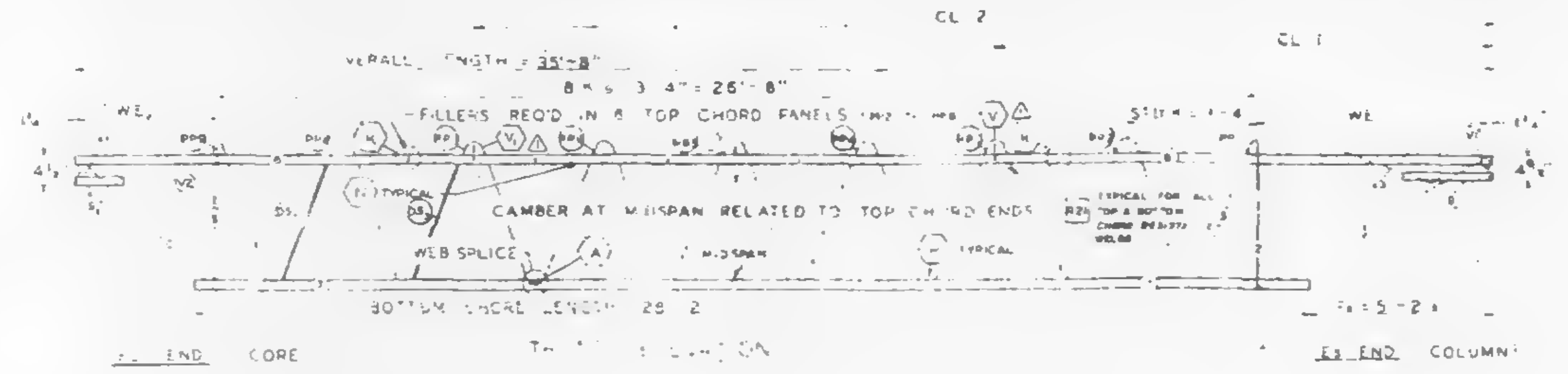
CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 26'-2½" | — | — | 5'-2½" |

[illegible] TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

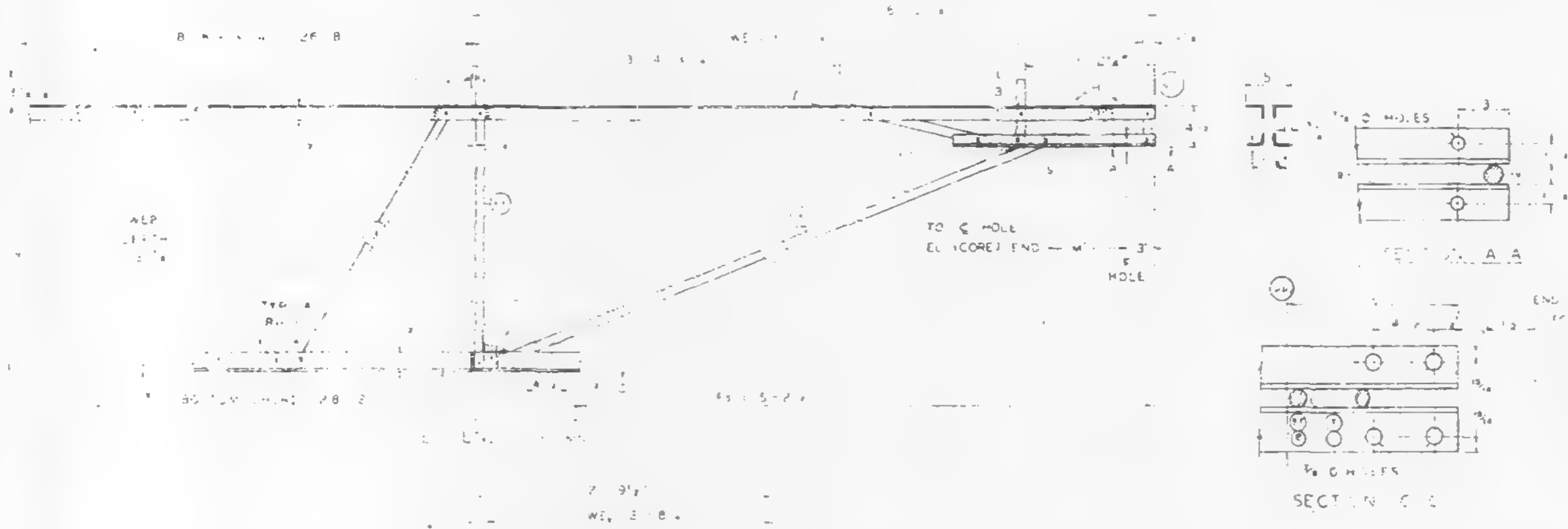
FLOOR TRUSS C32T13 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-12
PLATE
APPROVED FOR FABRICATION FOR PONYA
DATE 12/9/68
DRAWN BY
DATE FEB 28, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
DATE
CHECKED BY J F PAUL
DATE FEB 28, 1968
IN CHARGE OF PROD. DEV
DETAILED BY R C WEBER
FABRICATION CONT. NO W T C 221
SHEET NO ST213

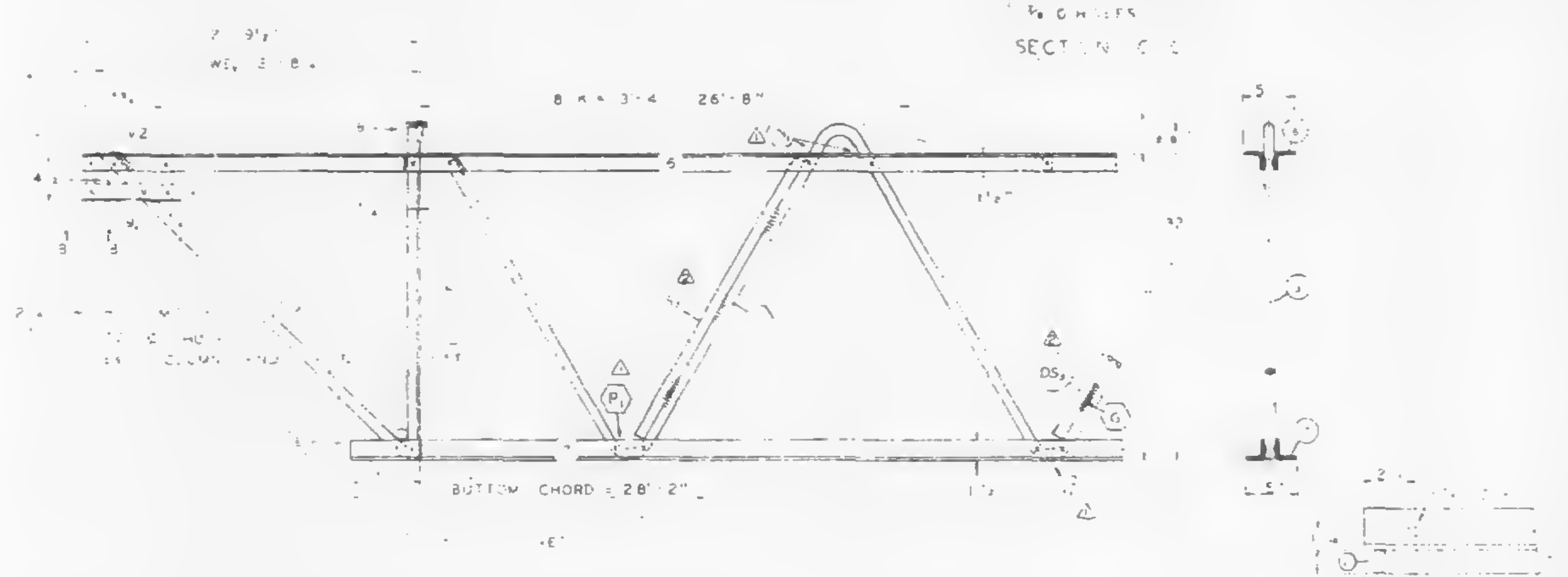

CL 2
CL 1
OVERALL LENGTH = 35'-8"
8 × 3' 4" = 26'-8"
FILLERS REQ'D IN 8 TOP CHORD PANELS
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
WEB SPLICE
A
MIDSPAN
TYPICAL FOR ALL TOP & BOTTOM CHORD WELDS
R21
BOTTOM CHORD LENGTH 28' 2
F1 = 5'-2
END CORE
END COLUMN

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN ⚠ | 7 8 | ± 3 8" |
| DESIGN DEPTH | 28" | ± 4" |
| PANEL "R" | 3' 4 | ± 4" |
| OVERALL LENGTH | 35' 8 | ± 3 8" |
| WEB DEPTH | 3' 7 8 | ± 4" |

ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
[illegible] DETAILS SHOWN ON SHEETS ST290, ST291 ⚠ AND ST292.
SEE SHEET ST295 FOR V1, V2 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R21.



DAMPING UNIT CONNECTION PLATE ATTACHED [illegible] CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT [illegible] 223.00.



| ⚠ | 7-23-68 | MARK DS LENGTH | |
|---|---|---|---|
| ⚠ | 8-22-68 | AS NOTED | |
| NO. | DATE | REVISION | BY |

REF DRWGS
[illegible] 2 — 4 [illegible]
[illegible] 52 — [illegible] 68
[illegible] 50 & 50 2 — 10-20-67
[illegible] 53 — 4 [illegible] 59
[illegible] 50 5 — 10-20 [illegible]

| [illegible] | [illegible] | | | | | | | [illegible] | | | | | | [illegible] | | [illegible] HOLES | CONNECTION FILLERS ⚠ | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | SIZE | LENGTH | | | | LENGTH | | TYPE STEEL | DIA | LENGTH | NO. OF [illegible] | NO | DIA | | NO. | DIA | LENGTH |
| 1 [illegible] | [illegible] | | [illegible] .025 | 35' 8 | 7 | A24[illegible] | 2 [illegible] .125 | 28'-2" | | A242 | [illegible] | 49'-10" | 8 3'-4 = 26' 8 | 6 | C58 | 35'-2¾" | 2 | 98 | 3" |

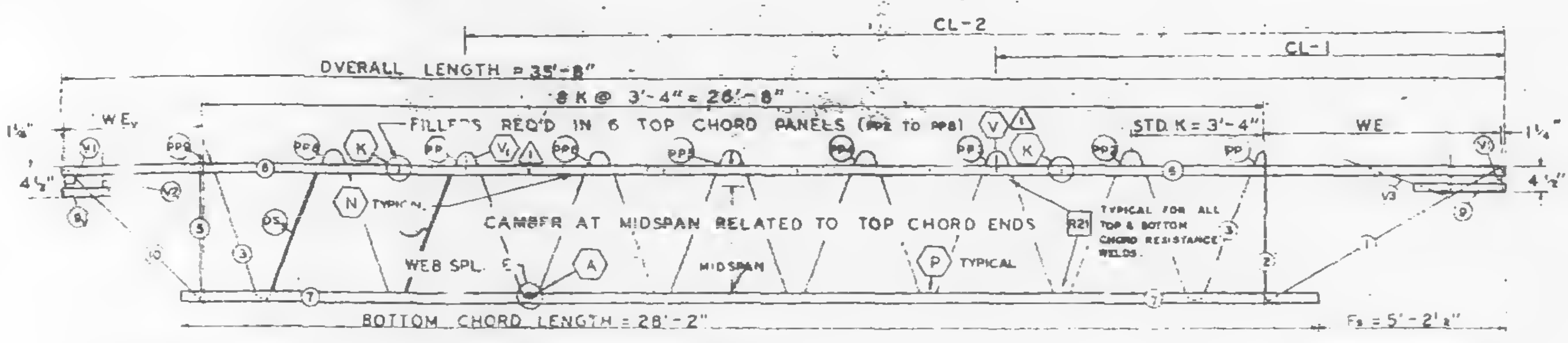
| [illegible] | [illegible] ANGLES | | | | [illegible] | DIAGONAL [illegible] STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK V | | | MK V3 | | |
| | MK | STEEL | | LENGTH | | MK | STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| [illegible] | | [illegible] | 2 [illegible] .125 | | 6'-1¼" | | A24[illegible] | [illegible] | [illegible] | 2 | A242 | C98 | 2'-7⅞" | A242 | 098 | 4⅝" | A242 | C98 | 2' 9½" |

| [illegible] | [illegible] | | | [illegible] | DIAGONAL [illegible] STRUT | | | | VERTICAL ST STRUT | | | | END STIFFENER | | | | | | | | | WEB "DS" | | | | | WEB "DS" | | | | | | DOUBLE STRUT DS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | MK V | | | MK V2 | | | MK [illegible] | | | | | | | | | | | | | | | | | |
| | MK | | LENGTH | | MK | STEEL | | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LGT. | MK | PCS | TYPE STEEL | DIA | LENGTH ⚠ |
| [illegible] | | 2 [illegible] .025 | | 2'-6¼" | | [illegible] | [illegible] | 3 [illegible] | 5 | A242 | 096 | 2'-7⅛" | A242 | 098 | 4⅜" | A242 | 098 | 7⅜" | — | — | — | — | — | — | — | — | — | — | — | — | — | DS | 2 | A242 | 75 | 2'-6¾" |

| CHECK DIMENSION FOR TRUSS [illegible] | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | F1 |
| 12'-10½" | 28'-2½" | — | — | 5'-2½" |

FLOOR [illegible] 32T/3 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A [illegible] 5

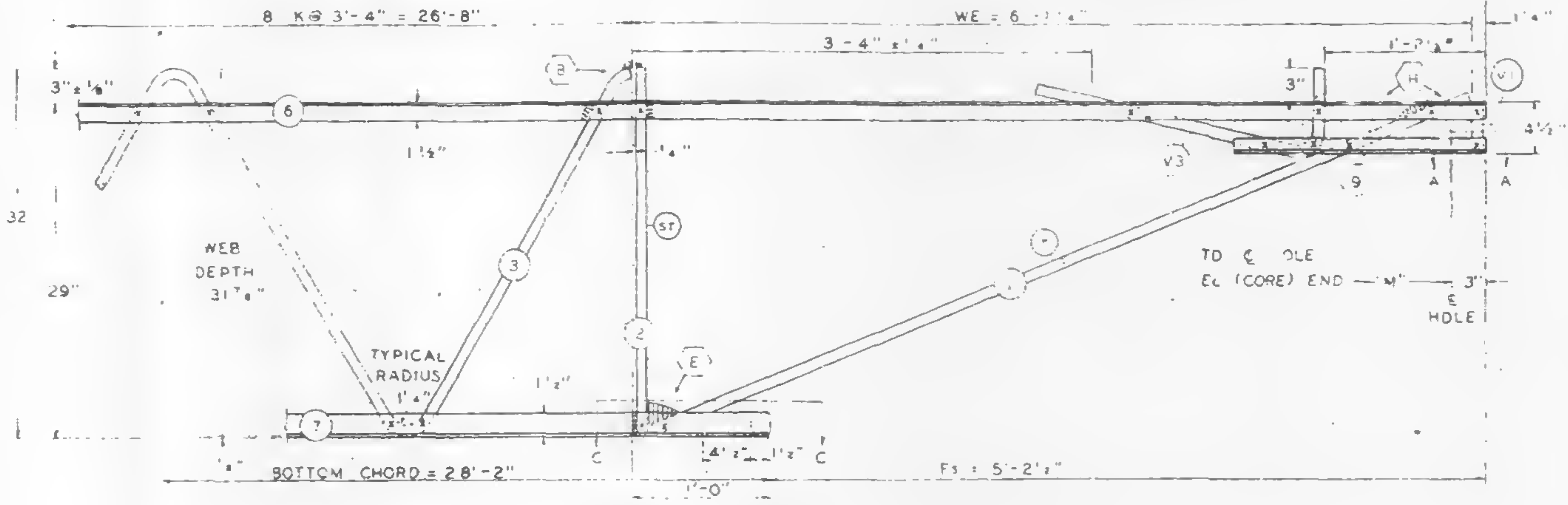
FABRICATION BY [illegible] EDE STEEL COMPANY
FABRICATED AT [illegible], ILLINOIS
DESIGN DRAWING NO. [illegible] 12
PLATE
DRAWN BY [illegible]
DATE FEB [illegible] 1968
[illegible] FABRICATION [illegible] WR PONTE
CHECKED BY J. PAUL
DATE FEB [illegible], 1968
IN CHARGE PROD. DEV.
FABRICATION CONTRACT NO. 221
SHEET ST213


CL-2
CL-1
OVERALL LENGTH = 35'-8"
8 K @ 3'-4" = 26'-8"
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO PP8)
STD. K = 3'-4"
WE
WEv
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS
R21
N TYPICAL
P TYPICAL
WEB SPL.
MIDSPAN
BOTTOM CHORD LENGTH = 28'-2"
Fs = 5'-2½"

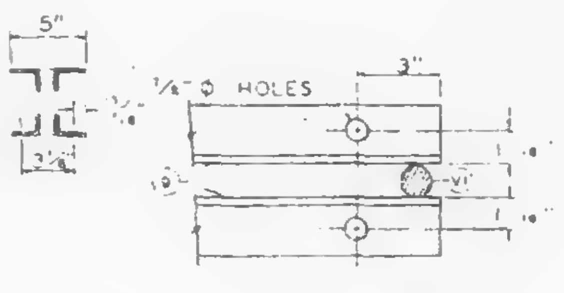
EL END (CORE)  TRUSS ELEVATION  Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (×).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291 ⚠1
AND ST292.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R21.

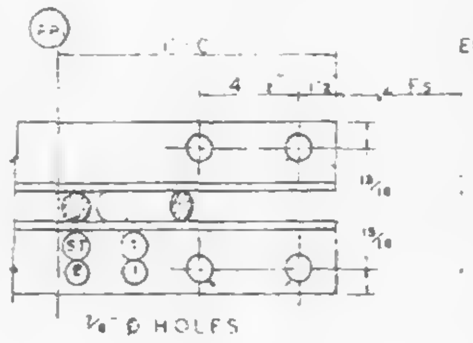
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN ⚠1 | 7/8" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3' 4" | ± 1/4" |
| OVERALL LENGTH | -8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 4" |



Es END (COLUMN)



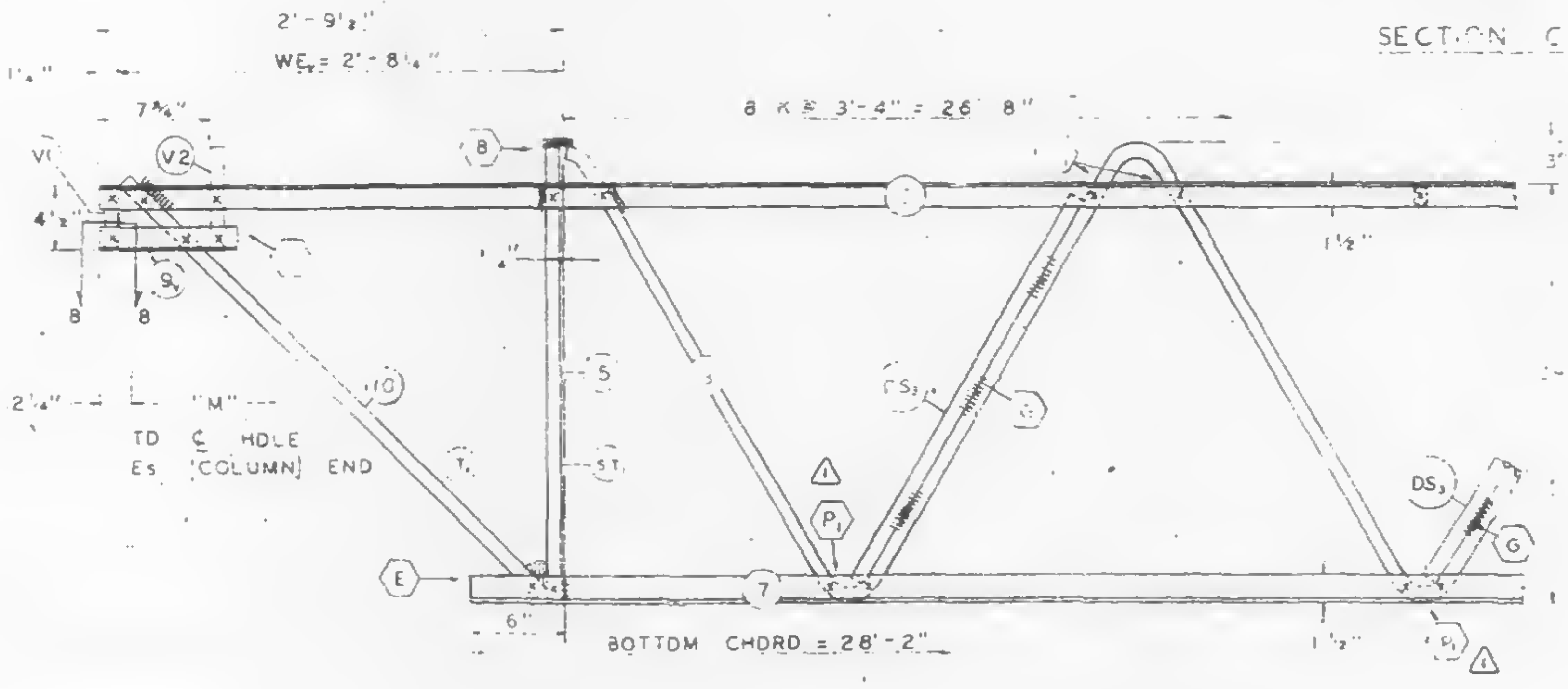
SECTION A-A



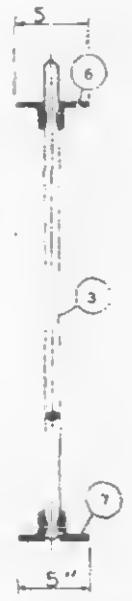
SECTION C-C

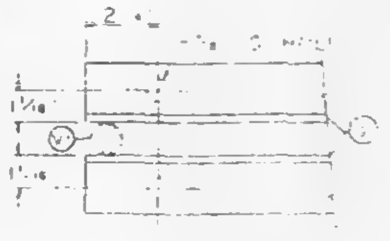
END OF TRUSS (COLUMN)

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.00.



EL END (CORE)





SECT H-H

| △ | 6-22-68 | AS NOTED | T.N.C. |
|---|---|---|---|
| NO | DATE | REVISION | BY |

REF DRWGS
7-A81-12 4-1-68
7-A81-52 2-15-68
7-A84-50 & 50.2 10-20-67
7-A81-53 4-1-68
7-A84-50.3 10-20-67

PAINT
LACLEDE ELECTROSTAT
RED NO.

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | M ℄ HOLES | CONNECTION FILLERS △ | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO. | DIA | LENGTH |
| C32T13-358 | 6 | A242 | 2"×1½"×0.25 | 35'-8" | 7 | A242 | 2"×1½"×0.25 | 28'-2" | 3 | A242 | 0.98 | 49'-10" | 8 @ 3'-4" = 26'-8" | 6 | 0.98 | 35'-2¾" | 2 | .98 | 3" |

COLUMN END

| Fs END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T13-358 | 9 | A242 | 2"×1½"×0.25 | 1'-0" | 6'-1¼" | | A242 | 0.98 | 6'-5" | 2 | A242 | 0.98 | 2'-7⅞" | A242 | 0.98 | 4⅜" | A242 | 0.98 | 2'-9½" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 26'-2½" | — | — | 5'-2½" |

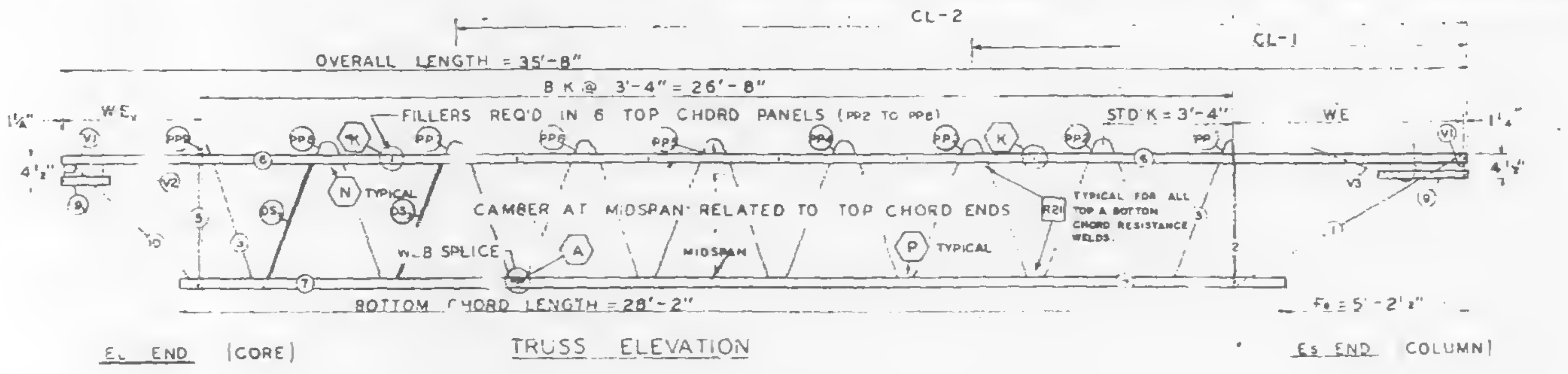
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "OS10" | | | | | WEB "DS5" | | | | | DOUBLE STRUT "DS2" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LGT. | MK | PCS | TYPE STEEL | DIA | LENGTH |
| | C32T13-358 | 9v | A242 | 2"×1½"×0.25 | 10" | 2'-8¼" | 10 | A242 | 0.98 | 3'-6¼" | 5 | A242 | 0.98 | 2'-7⅞" | A242 | 0.98 | 4⅜" | A242 | 0.98 | 7⅜" | — | — | — | — | — | — | — | — | — | — | — | — | — | DS2 | 2 | A242 | .75 | 2'-8¼" |

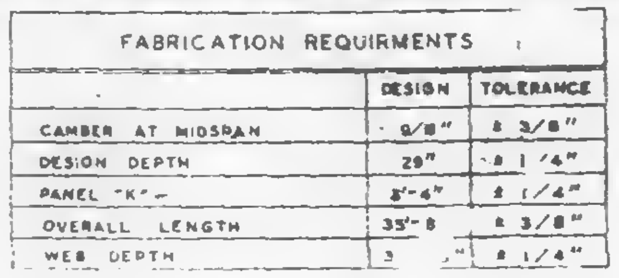
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T13 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-A81-12 | PLATE |
| APPROVED FOR FABRICATION BY JW FOR P.O.N.Y.A. | DATE 6/25/68 | DRAWN BY DATE FEB 24, 1968 | 1 |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY J.R. PAUL DATE FEB 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO ST213 |

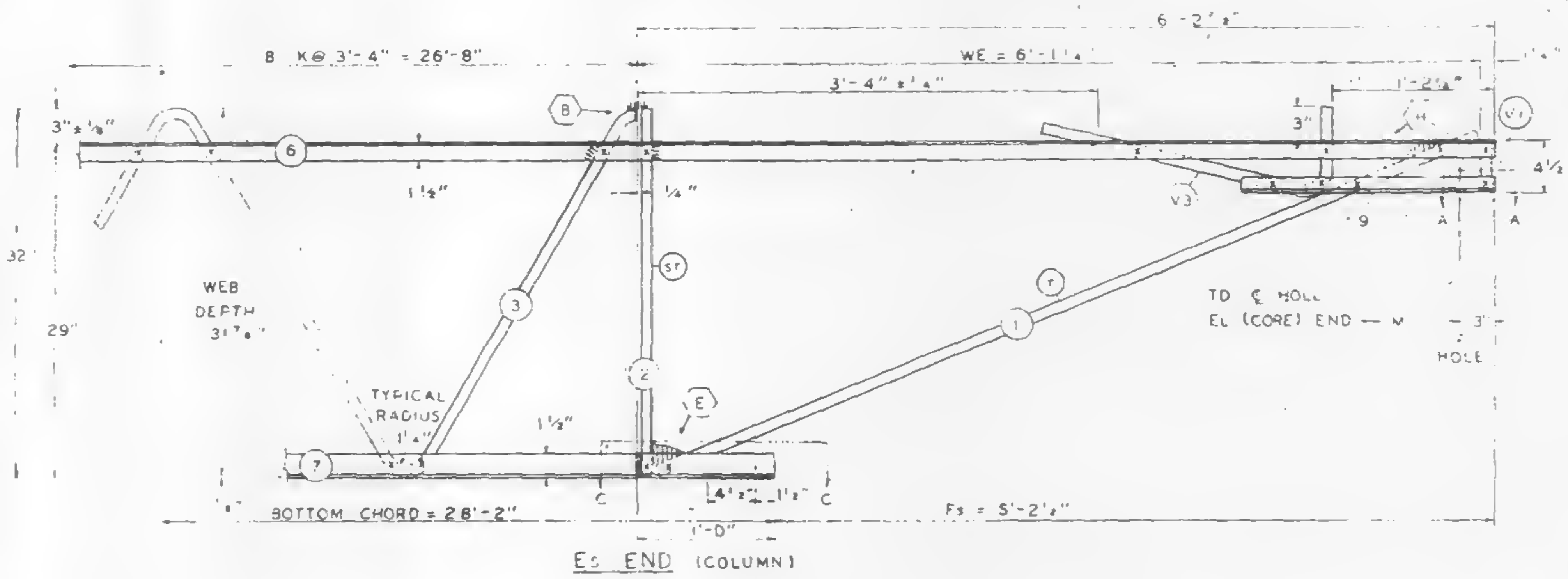

CL-2
CL-1
OVERALL LENGTH = 35'-8"
8 K @ 3'-4" = 26'-8"
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO PP6)
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
R21 TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS.
N TYPICAL
WEB SPLICE
A
MIDSPAN
P TYPICAL
BOTTOM CHORD LENGTH = 28'-2"
Fs = 5'-2½"

EL END (CORE) TRUSS ELEVATION Es END (COLUMN)

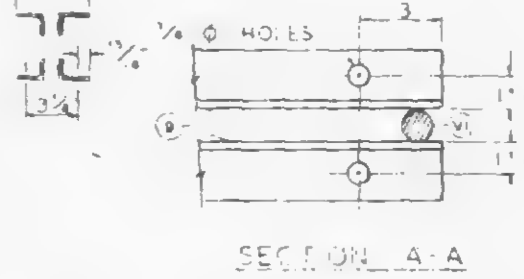


| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 9/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" – | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8 | ± 3/8" |
| WEB DEPTH | 3 " | ± 1/4" |

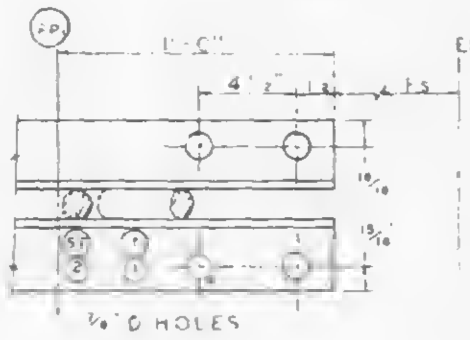
ALL PANEL POINTS RESISTANCE WELOED (×).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290 AND ST291.
SEE SHEET ST295 FOR V1, V2, & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R21.



Es END (COLUMN)

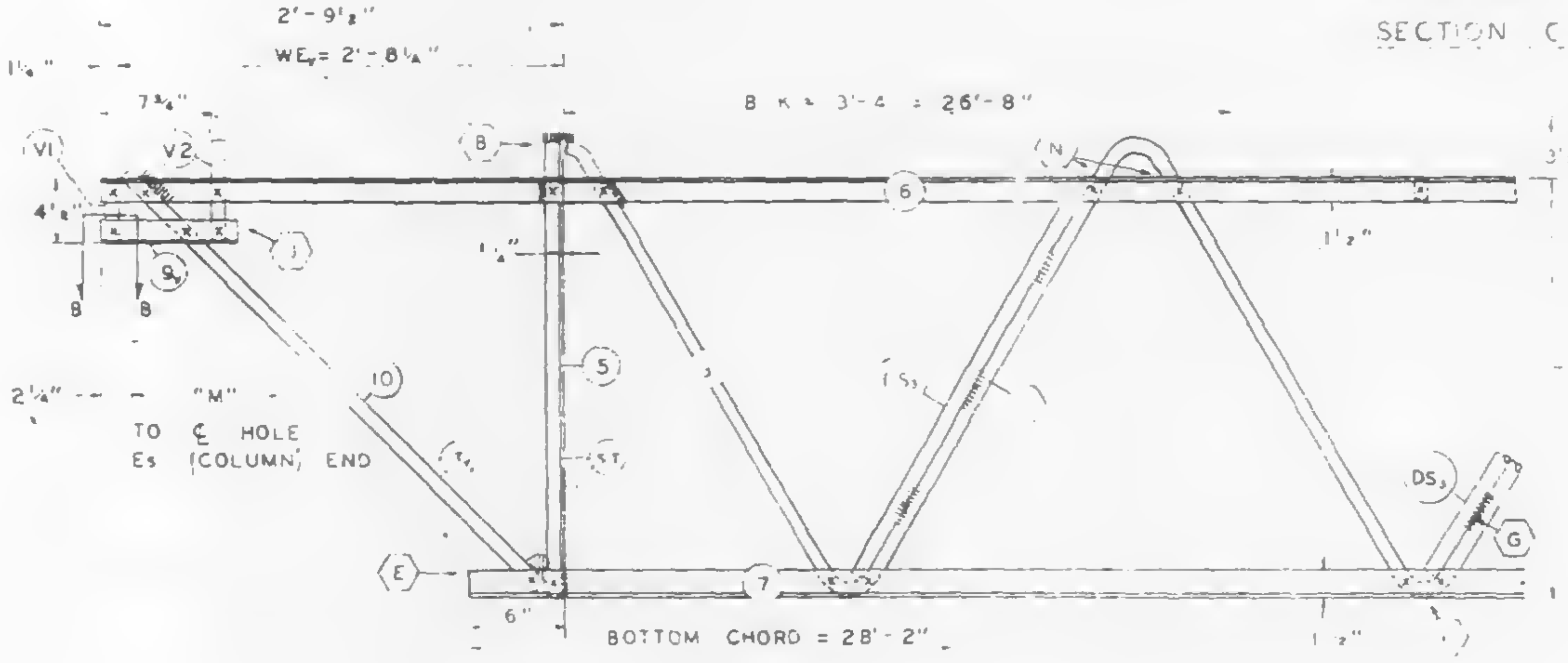


SECTION A-A

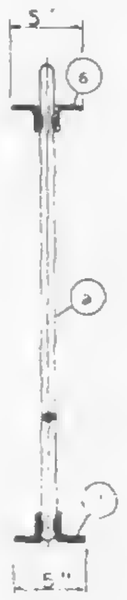


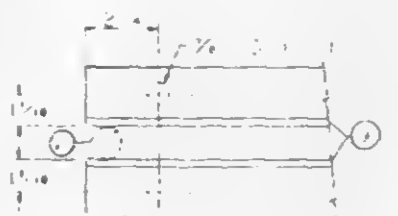
SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT WTC 223.DD.



EL END (CORE)





REF ORWGS

| | |
|---|---|
| 7-AB1-12 | 4-1-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-50 & 50.2 | 10-20-67 |
| 7-A91-53 | 4-1-69 |
| 7-AB4-50 3 | 10-20-67 |

PAINT
LACLEDE ELECTROCOAT
RED NO [illegible]

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | FILLER | | M HOLES | TRUSS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | | |
| C32T13 358 | F | A24[illegible] | 2"x 2"x.025 | 35'-8" | 7 | A242 | 2"x1½"x.025 | 28'-2" | 3 | A242 | 098 | 49'-10" | 8 3'-4"=26'-8" | 6 | 058 | 35'-2¾" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "ST" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T13 358 | 9 | A242 | 2"x1½"x.025 | [illegible] | 6'-1¼" | | A242 | 098 | [illegible] | 2 | A242 | 098 | 2'-7⅜" | A242 | 098 | 4⅜ | | 098 | 2'-9½" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEc | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "DS10" | | | | | WEB "DS5" | | | | | DOUBLE STRUT DS3 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LGT. | MK | PCS | TYPE STEEL | DIA | LENGTH |
| | C32 13 358 | 9 | A242 | 2"x1½"x.025 | 10" | 2'-8¼" | 10 | A242 | 098 | 3'-6¼" | 5 | A242 | 098 | 2'-7⅜" | A242 | 098 | 4⅜" | A242 | 098 | 7⅜" | — | — | — | — | — | — | — | — | — | — | — | — | — | DS3 | 2 | A242 | .75 | 2'-8½" |

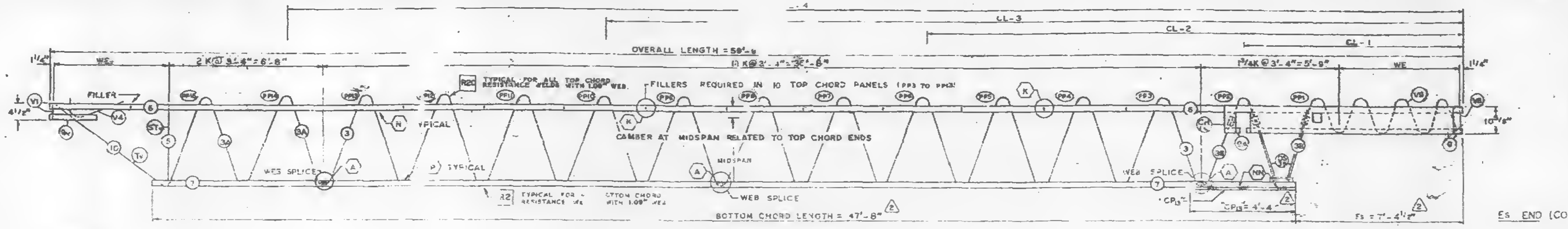
[illegible] FOR [illegible] FAB

| | | | | |
|---|---|---|---|---|
| 12'-10½" | 26'-2½" | — | — | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER · N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T13 35'-8" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-12
PLATE
APPROVED FOR FABRICATION BY [illegible] FOR PONYA
DATE 4/26/68
DRAWN BY [illegible]
DATE FEB 24, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR
DATE
CHECKED BY J.R PAUL
DATE FEB 24, 1968
IN CHARGE OF PROD DEV
DETAILED BY A.C WEBER
FABRICATION CONT NO WTC 221
SHEET N ST213


OVERALL LENGTH = 59'-9"
CL-4
CL-3
CL-2
CL-1
WE
2 K @ 3'-4" = 6'-8"
11 K @ 3'-4" = 36'-8"
1 3/4 K @ 3'-4" = 5'-9"
1 1/4"
4 1/2"
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09" WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP12)
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB
BOTTOM CHORD LENGTH = 47'-8"
"CP13"
SP13 = 4'-4"
Es = 7'-4 1/2"
10 3/8"

EL END (CORE)

TRUSS ELEVATION

Es END (COLUMN)

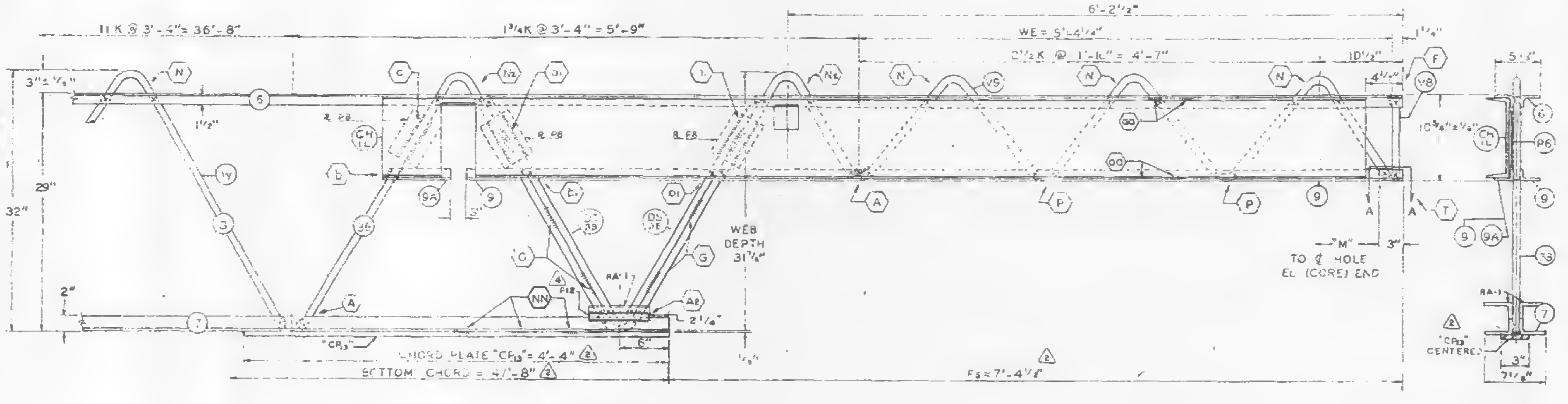
## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ±3/8" |
| DESIGN DEPTH | 29" | ±1/4" |
| PANEL "K" | 3'-4" | ±1/4" |
| OVERALL LENGTH | 59'-9" | ±3/8" |
| WEB DEPTH | 31 7/8" | 4" |

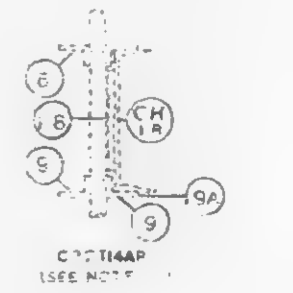
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R1.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST293 AND ST283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR V1 & V4 DETAILS.

NOTE #2

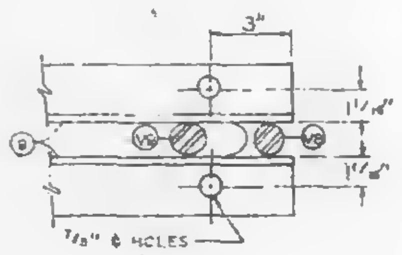
ALL DETAILS & ELEVATIONS SHOWN FOR C32T14AL TRUSSES ARE APPLICABLE TO C32T14AR TRUSSES WITH CHANNEL CHIR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.



Es END (COLUMN)

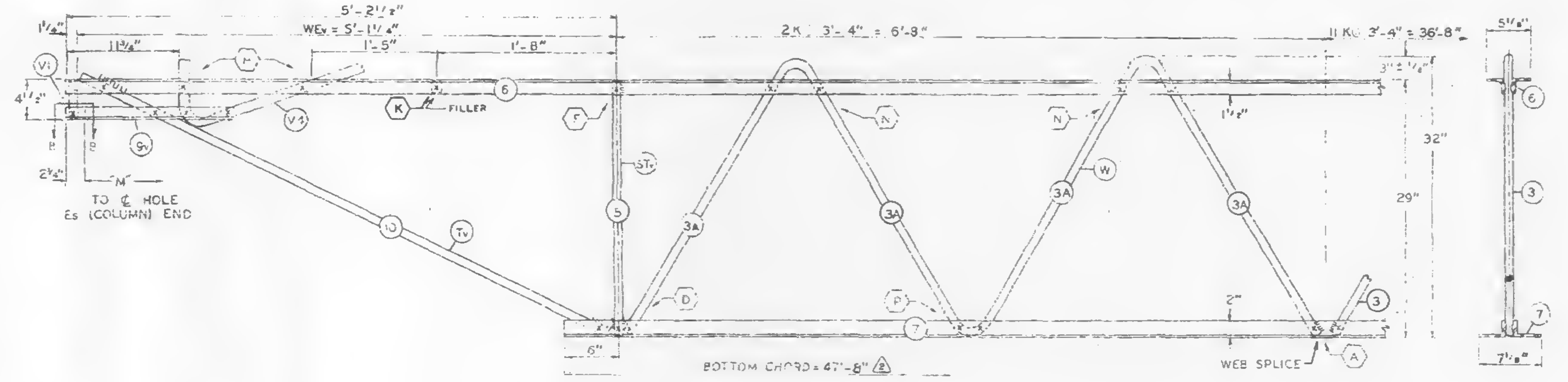


CHL PLACED AS SHOWN FOR C32T14AR.
CHL PLACED AS SHOWN FOR C32T14AL.



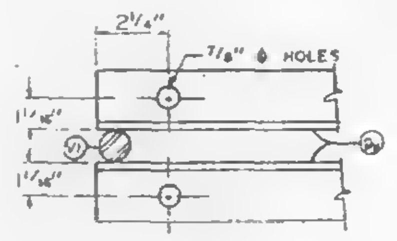
SECTION A-A

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 12-10-68 | AS NOTED | G.D.C. |
| 3 | 11-7-68 | AS NOTED | G.D.C. |
| 2 | 10-17-68 | AS NOTED | LWH |
| 1 | 10-3-68 | GENERAL | G.D.C. |



BOTTOM CHORD = 47'-8"

EL END (CORE)



SECTION B-B

REF. DRWG.

| | |
|---|---|
| 7-AB1-13 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 6-15-68 |
| 7-AB4-17, 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" 9/16 HOLES | CHORD PLATE | | | | TRUSS DATA | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | | MK | TYPE STEEL | SIZE | LENGTH | | MK | TYPE STEEL | PCS | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T14AL-599 | 6 | A242 | 2"x1 1/2"x.25" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.02<br>1.14<br>1.14 | 66'-5 1/4"<br>12'-5 7/8"<br>10'-7 3/8" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1 3/4K @ 3'-4" = 5'-9" | 11 | 1.09 | 59'-3 3/4" | — | — | — | — | | PE | A36 | 3 | 4"x.39" | 5 1/2" | RA1 | A36 | 3"x2"x.37" | 7 1/2" | F12 | A36 | 1"x3/8" | 7 1/2" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V6 | | | MK. V8 | | | MK. V10 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 1<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | CP13 | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CHIL<br>CHIR | A36<br>A36 | 10 [ 30<br>10 [ 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Es |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

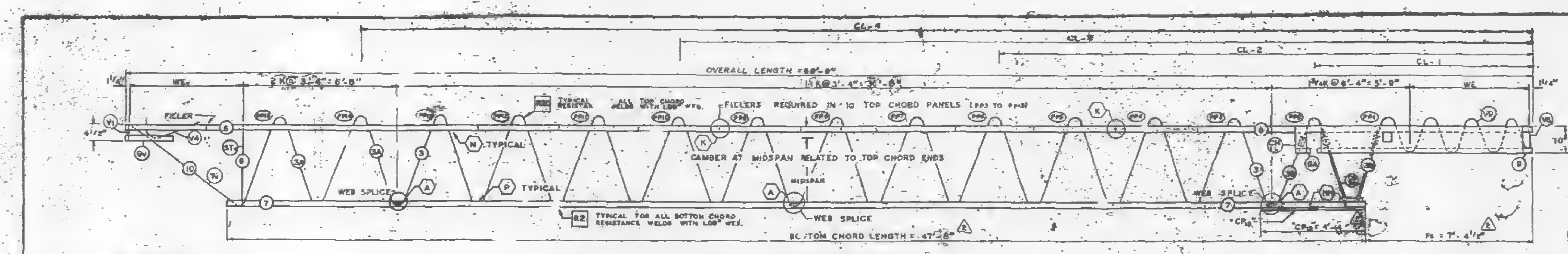
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14AL-599 | 9V | A242 | 2"x1 1/2"x.25" | 1'-7" | 5'-1 1/4" | 10 | A242 | 1.14 | 5'-6 1/2" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | — | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN, DRAWING NO. 7-AB1-13 | PLATE |
| APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. | DATE 12/16/68 | DRAWN BY gdc<br>DATE SEPT. 9, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA<br>DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO. | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 214AL |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
WEv
2K @ 3'-4" = 6'-8"
11 K @ 3'-4" = 36'-8"
1¾K @ 3'-4" = 5'-9"
WE
FILLER
TYPICAL RESISTANCE WELDS ALL TOP CHORD WITH LOD WTS.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
P TYPICAL
MIDSPAN
WEB SPLICE
R2 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH LOD WTS.
BOTTOM CHORD LENGTH = 47'-8"
"CP₀" = 4'-4"
Fs = 7'-4½"
10⅞"

EL END (CORE)

TRUSS ELEVATION

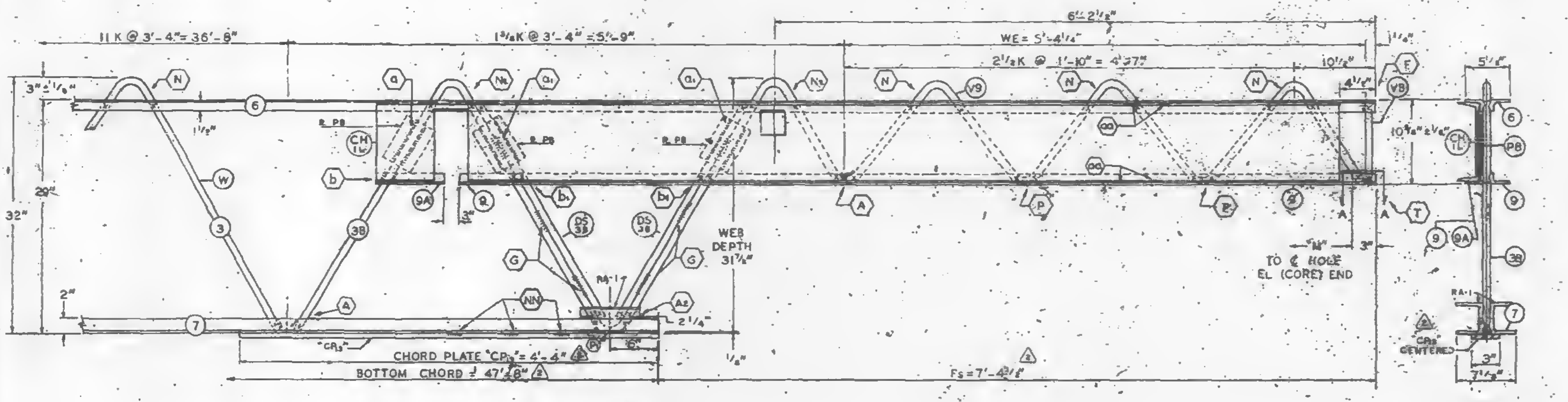
Es END (COLUMN)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

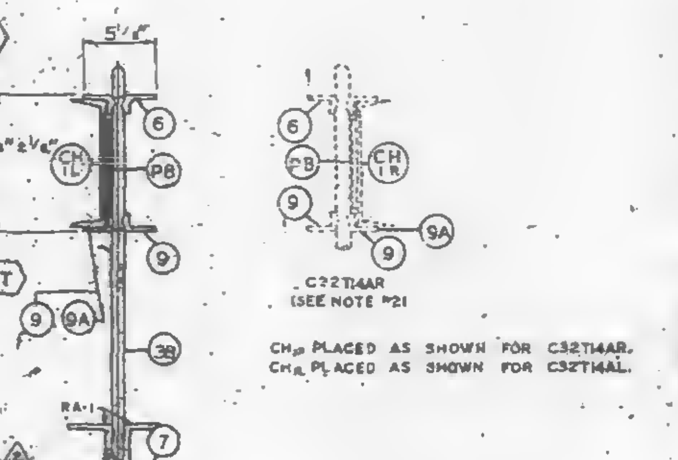
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., RI.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD-PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR VI & V4 DETAILS.

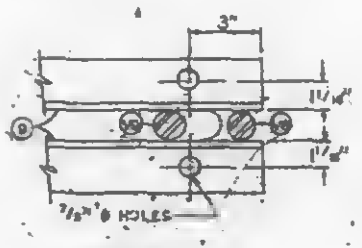
NOTE #2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T14AL
TRUSSES ARE APPLICABLE TO C32T14AR. TRUSSES
WITH CHANNEL CH R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.

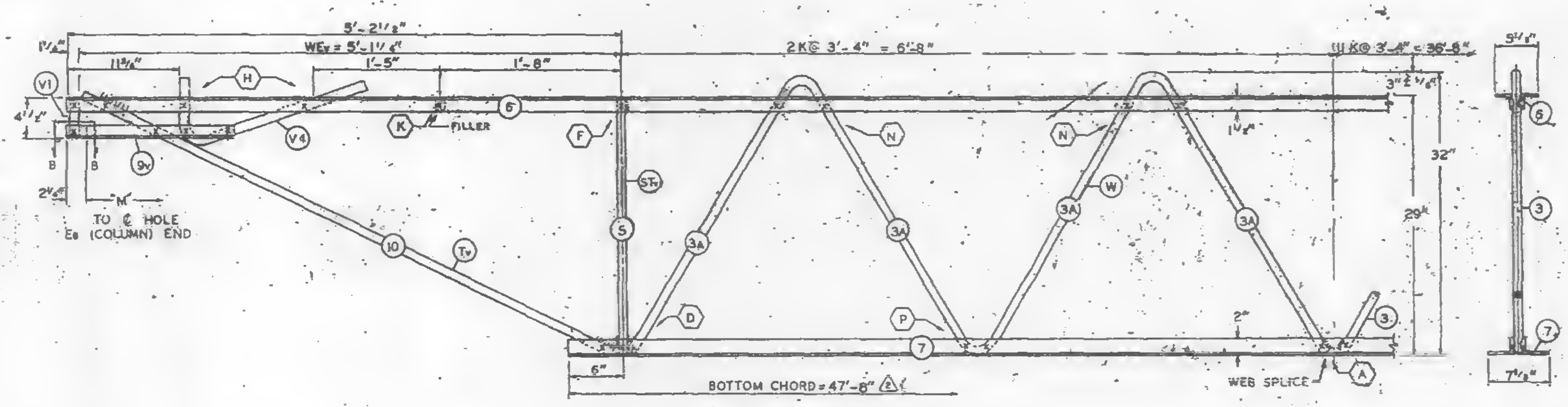


Es END (COLUMN)

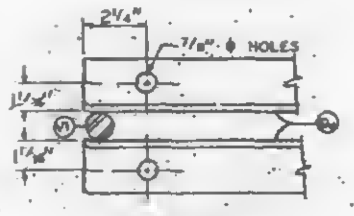

5⅛"
C32T14AR (SEE NOTE #2)
CH R PLACED AS SHOWN FOR C32T14AR.
CH L PLACED AS SHOWN FOR C32T14AL.
"CP₀" CENTERED
7⅛"
C32T14AL (SEE NOTE #2)



SECTION A-A



EL END (CORE)



SECTION B-B

| | | | |
|---|---|---|---|
| 2 | 10-17-68 | AS NOTED | LWH |
| 1 | 10-3-68 | GENERAL | G.D.C. |
| NO. | DATE | REVISION | BY |

| REF. DRWG. | | |
|---|---|---|
| | 7-A81-13 | 8-15-68 |
| | 7-A81-54 | 8-15-68 |
| | 7-A81-58, 55 | 7-22-68 |
| | 7-A88-2 | 1-3-68 |
| | 7-A83-24 | 8-15-68 |
| | 7-A84-17, 17.2 | 8-15-68 |
| | SA-124 | 8-1-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10DD1

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | TRUSS DATA | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | | | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T14AL-599 | 6 | A242 | 2"x1½"x.25" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible]<br>12'-5[illegible]<br>10'-7[illegible] | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 11 | 1.09 | 59'-3¾" | — | — | — | — | | | P8 | A36 | 3 | 4x3/8 | 5¼" | [illegible] | A36 | 3"x2"x.37 | 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH (12 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14AL-599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 8'-5"<br>8½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | CP | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH L<br>CH R | A36<br>A36 | 10[30<br>10[30 | [illegible]<br>[illegible] |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 38'-2½" | 49'-6½" | 7'-4½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14AL-599 | 9v | A242 | 2"x1½"x.25" | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6⅝" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅜ | — | — | — | A242 | 1.14 | 2'-2⅝" | — | — | — | — | — | — | — | — |

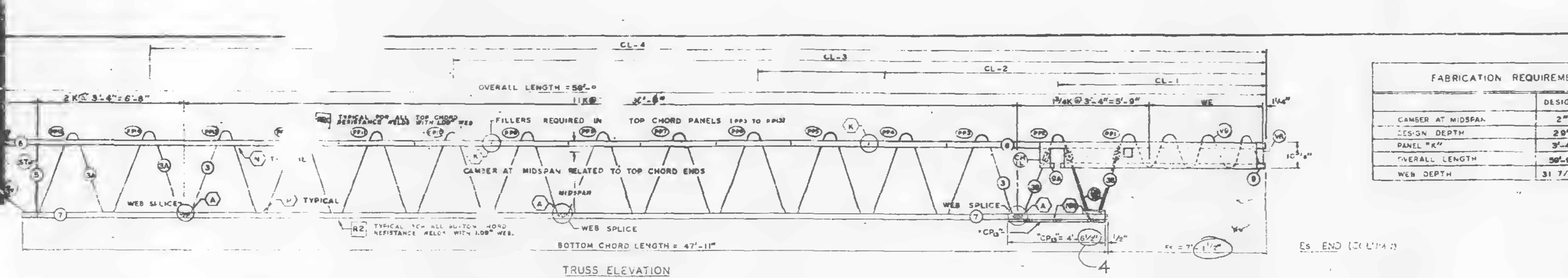
FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

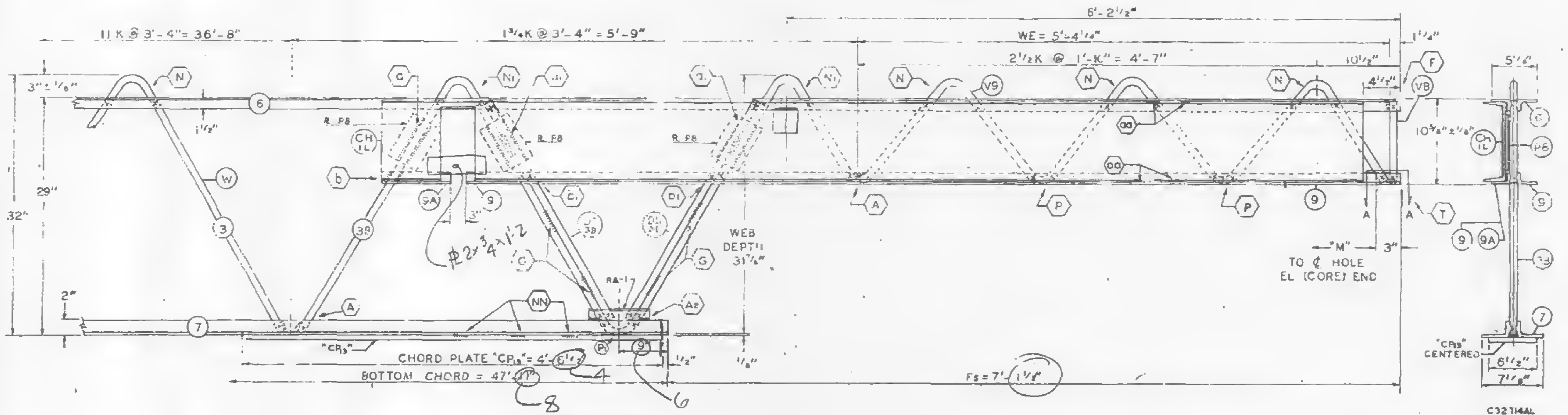
FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-13 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. BY: James White | DATE 10/23/68 | DRAWN BY: gdc<br>DATE SEPT. 9, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M. CHURA<br>DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A CARL WEBER | 50 | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 214AL |

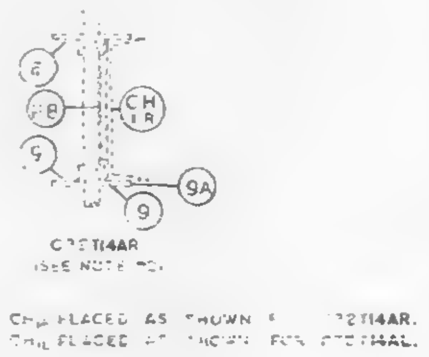
[redacted]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
2 K@ 3'-4" = 6'-8"
11K@
1¾K@ 3'-4" = 5'-9"
WE
1¼"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH LOB WEB
FILLERS REQUIRED IN TOP CHORD PANELS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH LOB WEB
BOTTOM CHORD LENGTH = 47'-11"
"CP13" = 4'-6½"
4
Fs = 7'-1½"
EL END (CORE)
Es END (COLUMN)

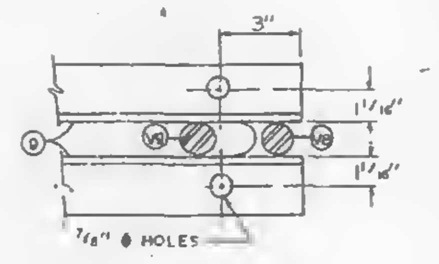
TRUSS ELEVATION



Es END (COLUMN)



CH2 PLACED AS SHOWN FOR C32T14AR.
CH1 PLACED AS SHOWN FOR C32T14AL.



SECTION A-A

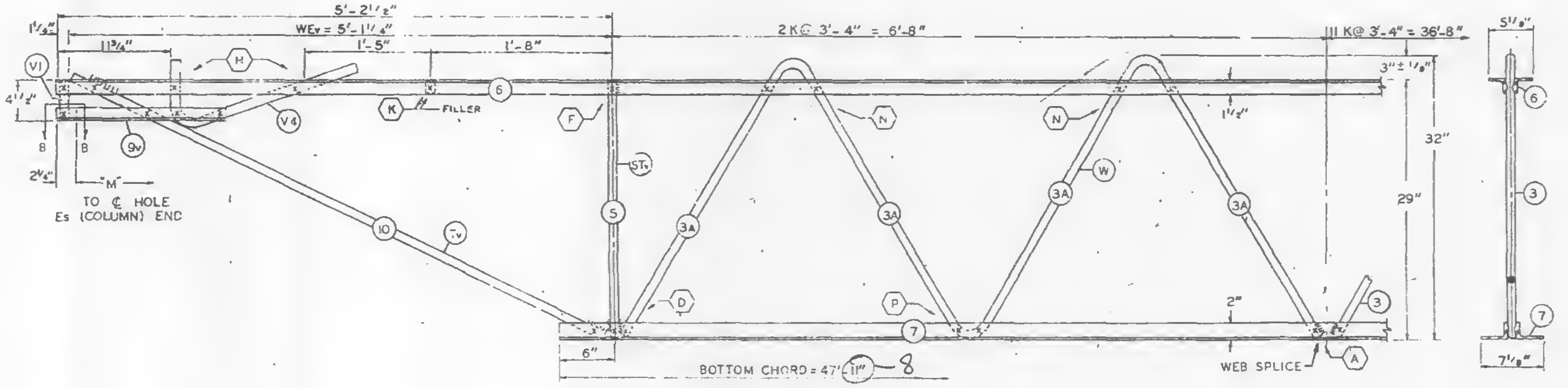
ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED [illegible] AND AT BOTTOM CHORD WEB SPLICES [illegible] LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH CERTIFIED IN THE QUALITY CONTROL PROGRAM, ie., RI. ALL WELD [illegible] SHEETS ST290, ST291, ST293 AND ST283. ALL CHANNEL [illegible] SHOWN ON SHEET [illegible] CHORD PLATE [illegible] SHOWN ON SHEET ST283. SEE SHEET ST 295 FOR VI & V4 DETAILS.

NOTE #2

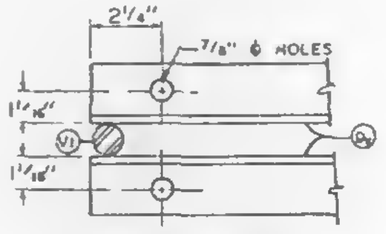
[illegible] ELEVATIONS SHOWN FOR C32T14AL TRUSSES ARE APPLICABLE TO C32T14AR TRUSSES WITH CHANNEL CH1 AND BEARING ANGLE 9A PLACED ON [illegible] AS SHOWN.

## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ±3/8" |
| DESIGN DEPTH | 29" | ±1/4" |
| PANEL "K" | 3'-4" | ±1/4" |
| OVERALL LENGTH | 59'-9" | ±3/8" |
| WEB DEPTH | 31 7/8" | ±1/4" |



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 10-3-67 | GENERAL | G.D.C. |

SKILLING HELLE CHRISTIANSEN ROBERTSON
Engineers
10/15/68 SK

| REF. DRWG. | |
|---|---|
| 7-AB1-13 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53,55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17,17.2 | 8-15-68 |
| SA-124 | 8-1-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | TRUSS DATA | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | | | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T14AL-599 | 6 | A242 | 2"x1½"x.25" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-11" 8 | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 38'-6¼"<br>12'-5⅞"<br>10'-7⅝" | 11K@3'-4"=36'-8"<br>2K@3'-4"=6'-8"<br>1¾K@3'-4"=5'-9" | 11 | 1.09 | 59'-3¾" | — | — | — | — | | | P8 | A36 | 3 | 4½".39 | 5⅛" | RA-1 | A242 | 2"x1½"x.25 3×2×.37 | 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | MK. V9 | | | MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14AL-599 | 6<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | —<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | CP13 | A36 | 6"x⅜" 3x.25 | 4'-6½" 4 | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1<br>CH2 | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

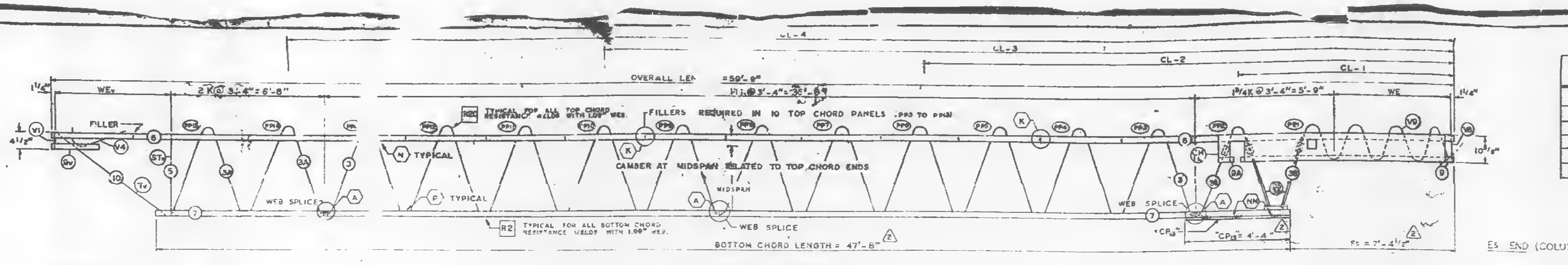
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | | | | MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14AL-599 | 9v | A242 | 2"x1½"x.25" | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | — | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

| | | |
|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | |
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-13 | DATE |
| APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE | DRAWN BY gdc DATE SEPT. 9, 1968 | |
| APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE | CHECKED BY T.M.CHURA DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST 214AL |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
WEv
2 K @ 3'-4" = 6'-8"
11 K @ 3'-4" = 36'-8"
1¾K @ 3'-4" = 5'-9"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH LOW WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
N TYPICAL
P TYPICAL
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB.
BOTTOM CHORD LENGTH = 47'-8"
"CP13"
"CP13" = 4'-4"
Es = 7'-4½"
1¼"
4½"
10⅝"
V1
V4
9v
10
Tv
STv
5
3A
3
6
7
9
9A
3B
NN
A
K
R2

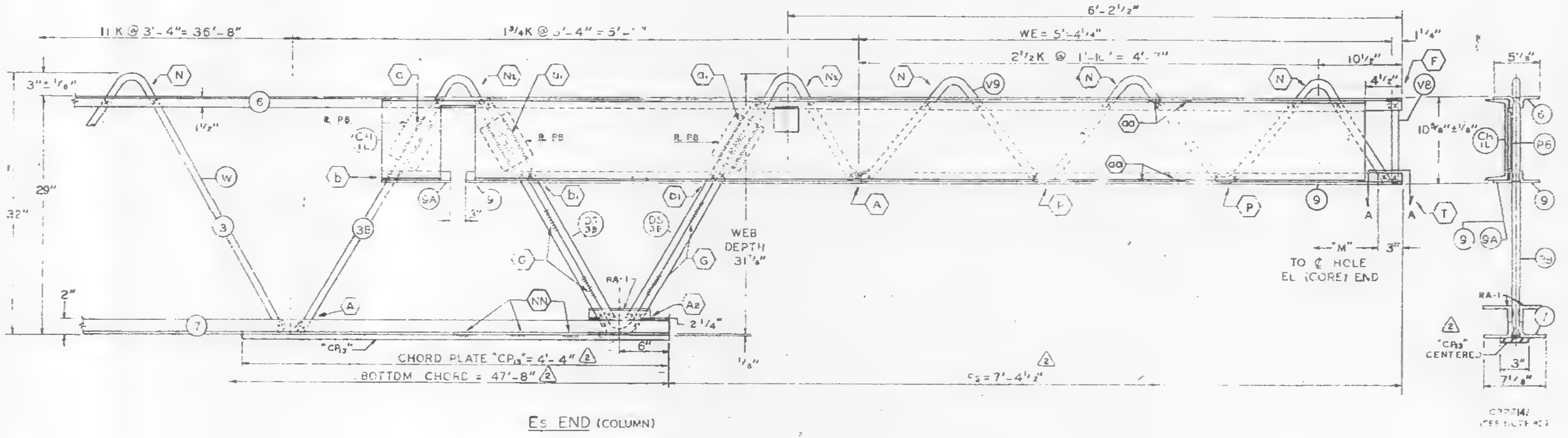
EL END (CORE)

TRUSS ELEVATION

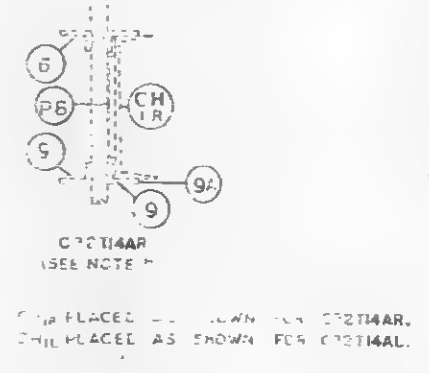
Es END (COLUMN)

## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ±3/8" |
| DESIGN DEPTH | 29" | ±1/4" |
| PANEL "K" | 3'-4" | ±1/4" |
| OVERALL LENGTH | 59'-9" | ±3/8" |
| WEB DEPTH | 31 [illegible]" | ±1/4" |



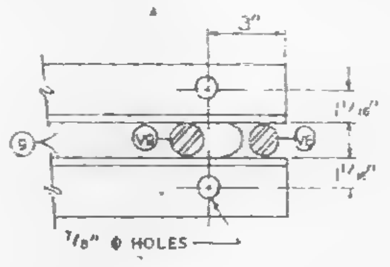
Es END (COLUMN)


6
P8
5
CH (R)
9
9v
C32T14AR (SEE NOTE 2)
CH PLACED AS SHOWN FOR C32T14AR.
CH PLACED AS SHOWN FOR C32T14AL.

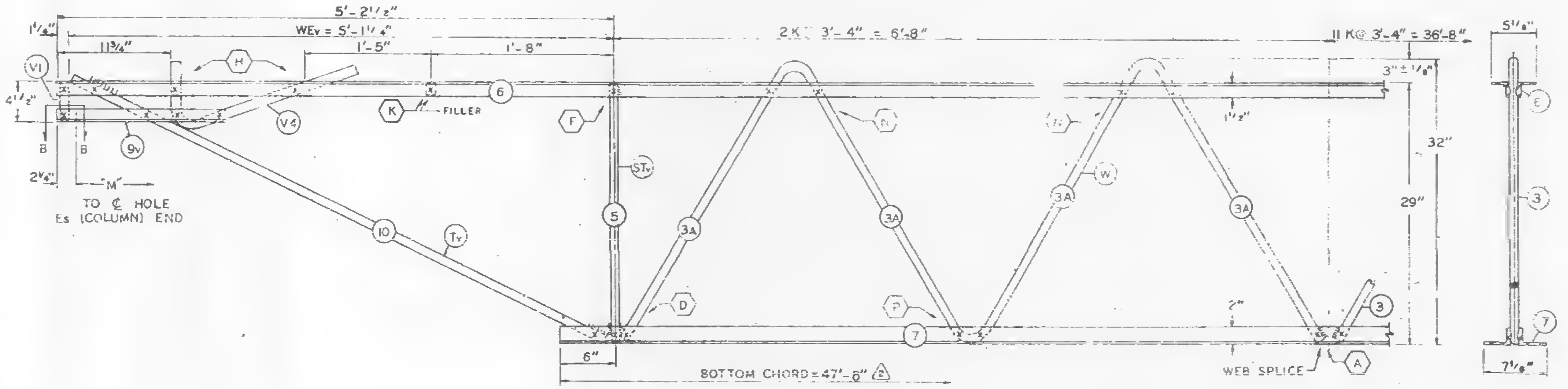
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM ie., RI .
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

NOTE #2

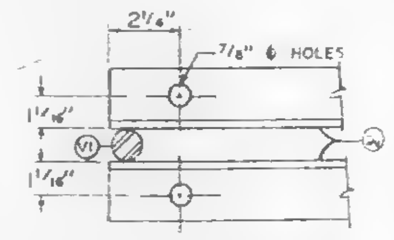
ALL DETAILS & ELEVATIONS SHOWN FOR C32T14AL
TRUSSES ARE APPLICABLE TO C32T14AR TRUSSES
WITH CHANNEL CHR AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



SECTION A-A



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 11-7-68 | AS NOTED | G.D.C. |
| 2 | 10-17-68 | AS NOTED | L.W.H. |
| 1 | 10-3-68 | GENERAL | G.D.C. |

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-13 | 10-4-66 |
| 7-AB1-54 | 10-4-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| T-AB3-24 | 8-15-68 |
| 7-AB4-17, 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 12001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | TRUSS DATA | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH (2) | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE (2) | LENGTH |
| C32T14AL-599 | 6 | A242 | 2"x1½"x.25" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible]<br>12'-5½"<br>10'-7⅝" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 11 | 1.09 | 59'-3¾" | — | — | — | — | | P8 | A36 | 3 | 4½"x.39" | 5½" | RA-1 | A36 | 3"x2"x.37" | 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE (2) | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14AL-599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 1<br>1 | 8'-5"<br>8½" | 5'-4¼" | [illegible] | A242 | 1.14 | 2'-6¾" | CP13 | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH-L<br>CH-R | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

CORE END

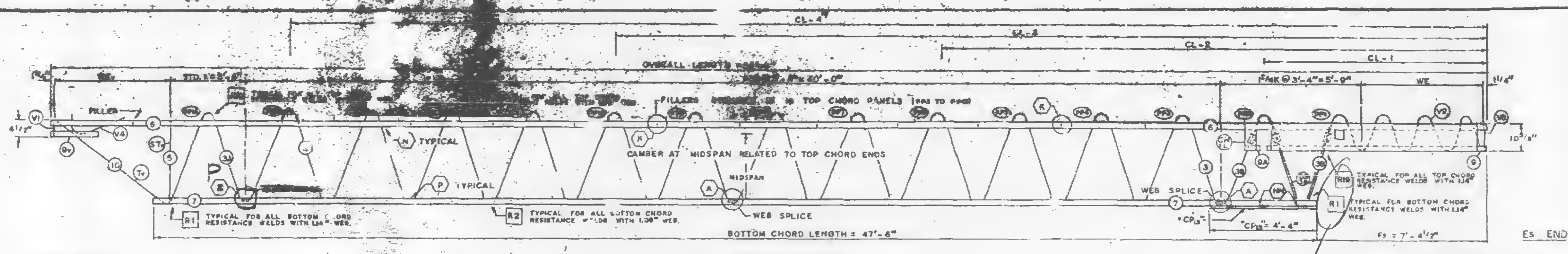
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14AL-599 | 9v | A242 | 2"x1½"x.25" | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | [illegible]⅜" | — | — | — | A242 | 1.14 | 2'-2½" | — | — | — | — | — | — | — | — |

3

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-13 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A BY [illegible] | DATE 11/18/68 | DRAWN BY gdc DATE SEPT. 9, 1968 | |
| APPROVED FOR FABRICATION FOR FABRICATOR BY | DATE | CHECKED BY T.M.CHURA DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 214AL |

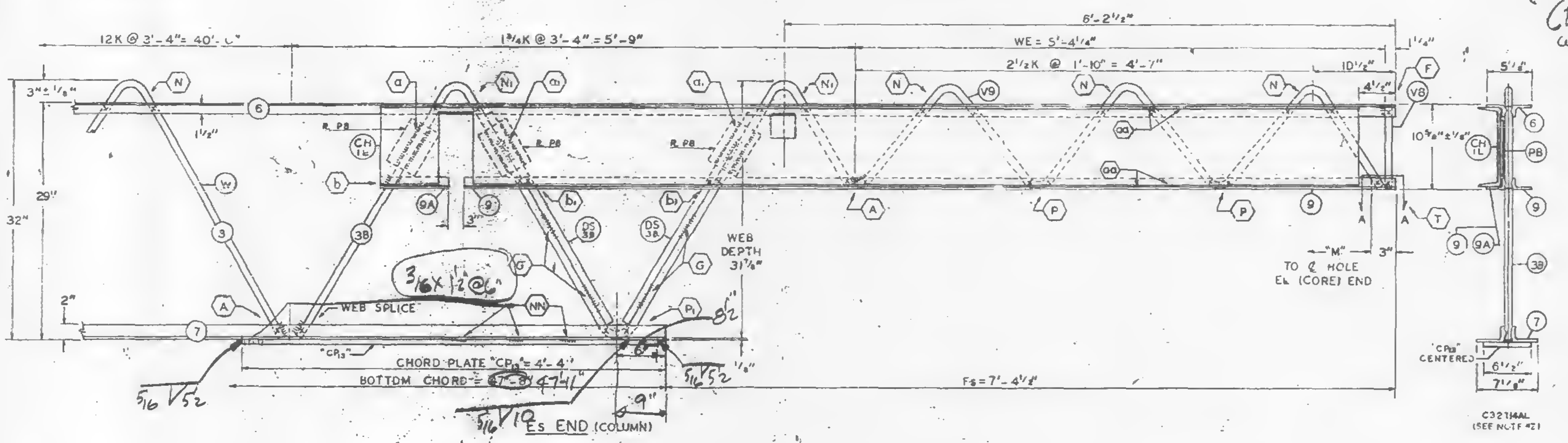

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH
FILLER
FILLERS ... 10 TOP CHORD PANELS
1¾K @ 3'-4" = 5'-9"
WE
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
P TYPICAL
WEB SPLICE
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB.
R2 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB.
R16 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB.
R1 TYPICAL FOR BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB.
"CP13"
"CP13" 4'-4"
BOTTOM CHORD LENGTH = 47'-6"
Fs = 7'-4½"
4½"
10⅝"
1½"
P

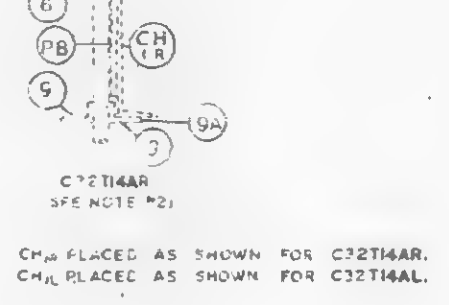
EL END (CORE)

TRUSS ELEVATION

Es END (COLUMN)

(Double Bars – Different R-Values?
(Full strength of both web bars to be Developed)





CP13 PLACED AS SHOWN FOR C32T14AR.
CH1L PLACED AS SHOWN FOR C32T14AL.

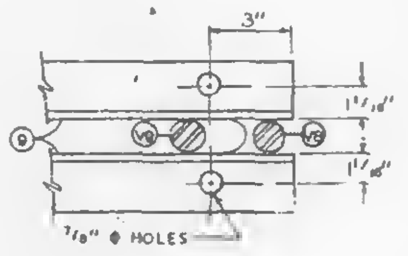
ALL PANEL POINTS RESISTANCE WELDED (A) ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (Initial).
LETTERS IN HEXAGON INDICATE WELD DETAIL i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R1.
ALL WELD DETAILS SHOWN ON SHEETS ST291, ST292, ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR VI & V4 DETAILS.
SEE SHEET ST 294 FOR V8 & V9 DETAILS.

NOTE #2

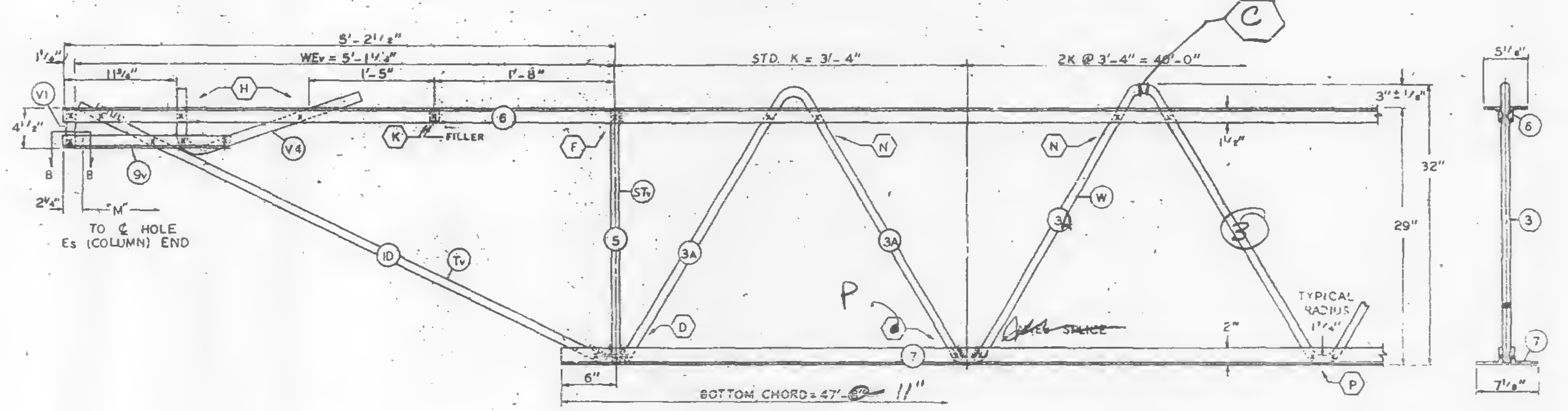
ALL DETAILS & ELEVATIONS SHOWN FOR C32T14AL TRUSSES ARE APPLICABLE TO C32T14AR EXCEPT WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

**FABRICATION REQUIREMENTS**

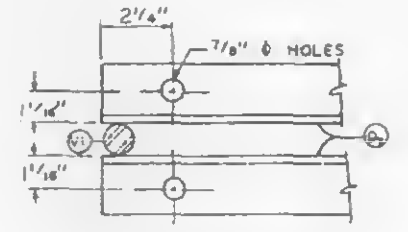
| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 32" | ±1/4" |
| PANEL "K" | 4" | ±1/4" |
| OVERALL LENGTH | 59'-9" | ±3/8" |
| WEB DEPTH | 31 7/8" | ±1/4" |



SECTION A-A



EL END (CORE)



SECTION B-B

REF. DRWG.

| | |
|---|---|
| 7-A61-13 | 6-15-68 |
| 7-A61-54 | 8-15-68 |
| 7-A61-53, 55 | 7-22-68 |
| 7-A63-2 | 1-3-66 |
| 7-A63-24 | 6-15-66 |
| 7-A64-17, 17.2 | 8-15-68 |
| SA-124 | 8-1-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" c/c HOLES | CHORD PLATE | | | | TRUSS DATA | | CHANNEL PLATES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | | | MK | TYPE STEEL | PCS. | SIZE | LENGTH |
| C32T14AL-599 | 6 | A242 | 2"x1½"x.25" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-6"<br>11" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 74'-6"<br>[illegible]<br>10'-7⅜" | 12K @ 3'-4" = 40'-0"<br>1K @ 3'-4" = 3'-4"<br>1¾K @ 3'-4" = 5'-9" | 11 | 1.09 | 59'-3¾" | — | — | — | — | | | Pb | A36 | 3 | 4"x½" | 6" |

4½x.39 5½"

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQD) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14AL-599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | [illegible] | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | CP | A36 | 6½"x¾" | 4'-4" | A242 | 1.14 | 10⅛" | | 1.14 | 8'-3⅞" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14AL-599 | 9v | A242 | 2"x1½"x.25" | 1'-7" | 5'-1½" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | — | — | — | — | — | — | — | — |

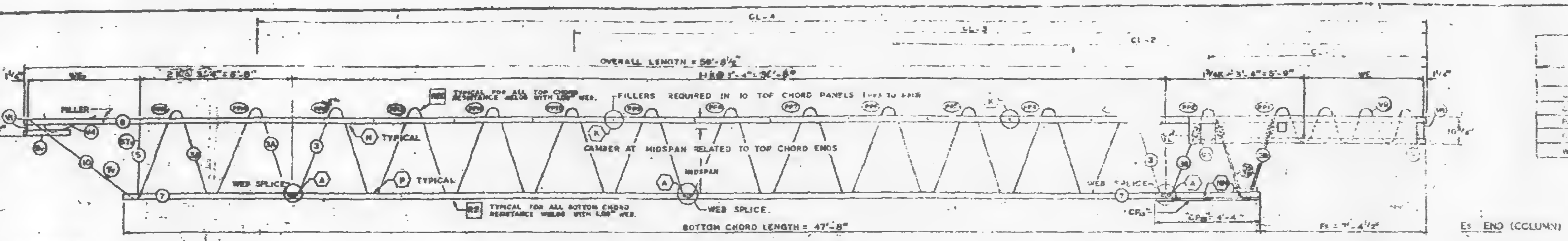
CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING 7-A61-13
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE ______
DRAWN BY gdc DATE SEPT. 9, 1968
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE ______
CHECKED BY T.M. CHURA DATE SEPT. 9, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 214AL


CL-4
SL-3
CL-2
OVERALL LENGTH = 59'-8½"
11K@3'-4"=36'-8"
1¾K@3'-4"=5'-9"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH LOW WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH LOW WEB
BOTTOM CHORD LENGTH = 47'-8"
CP₂ = 4'-4"
Fs = 7'-4½"
10¾"
4½"

EL END (CORE)

TRUSS ELEVATION

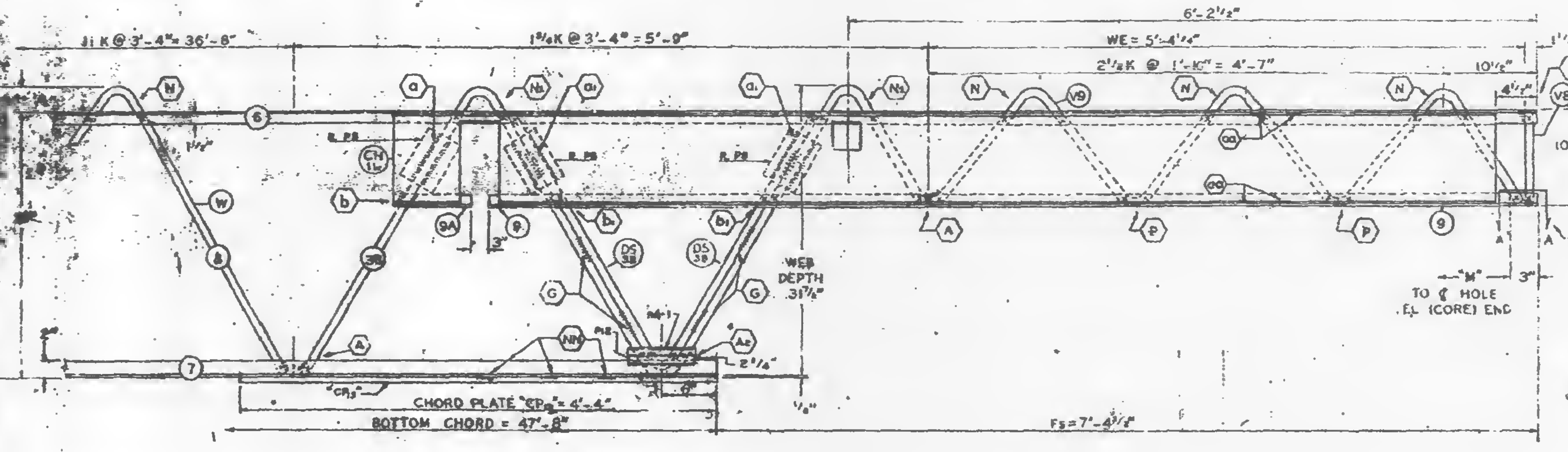
Es END (COLUMN)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ±3/8" |
| DESIGN DEPTH | 29" | ±1/4" |
| PANEL "K" | 3'-4" | ±1/4" |
| OVERALL LENGTH | 59'-8½" | ±3/8" |
| WEB DEPTH | 31 7/8" | ±1/4" |

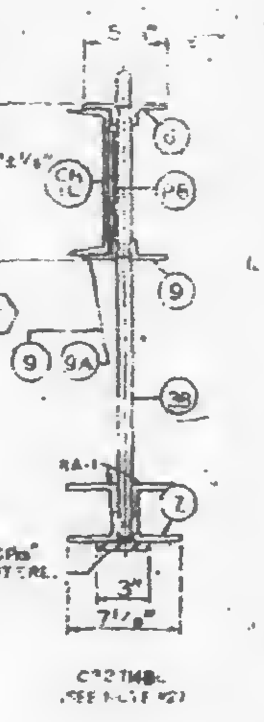
ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R1.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

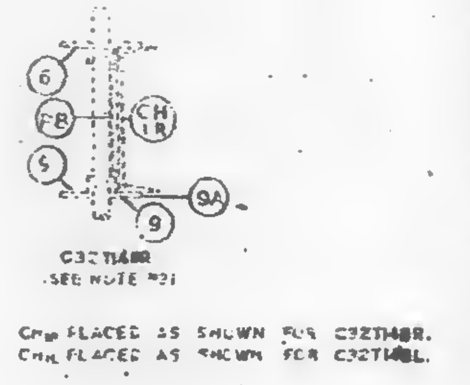
NOTE #2

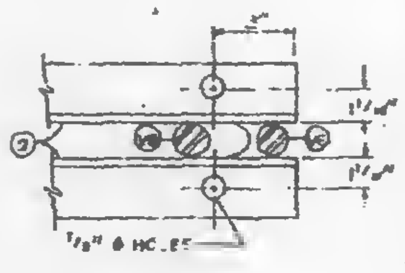
ALL DETAILS & ELEVATIONS SHOWN FOR C32T14BL
TRUSSES ARE APPLICABLE TO C32T14BR TRUSSES
WITH CHANNEL CHIR AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



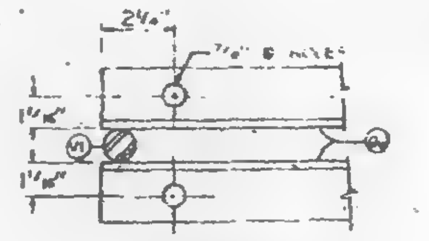
Es END (COLUMN)



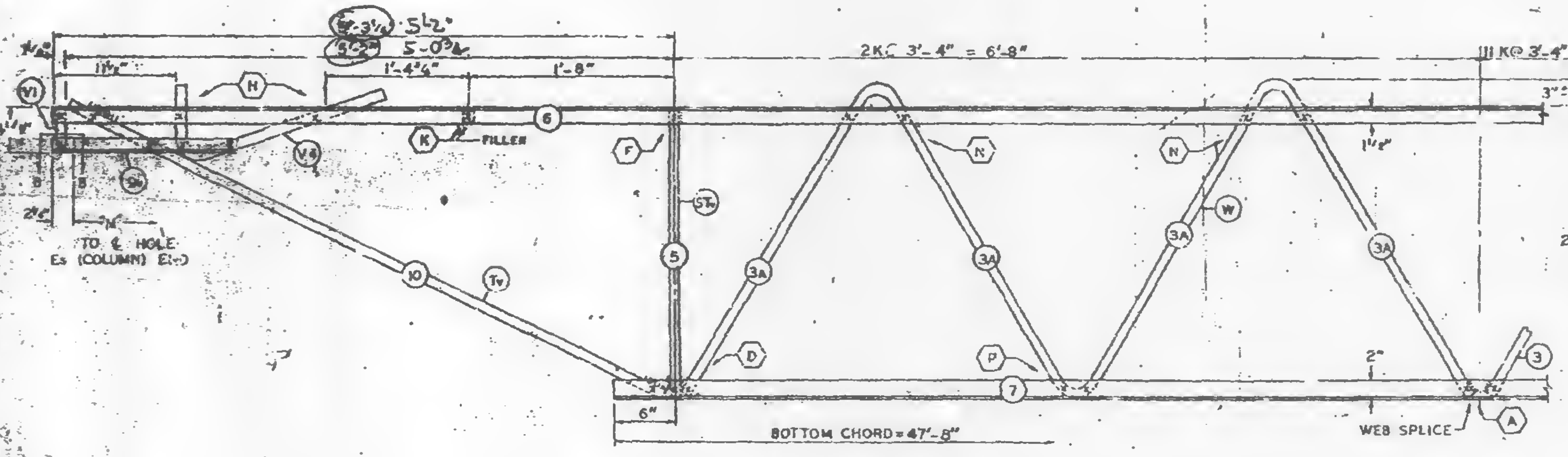

C32T14BR (SEE NOTE #2)
CP₂ PLACED AS SHOWN FOR C32T14BR.
CHR PLACED AS SHOWN FOR C32T14BL.



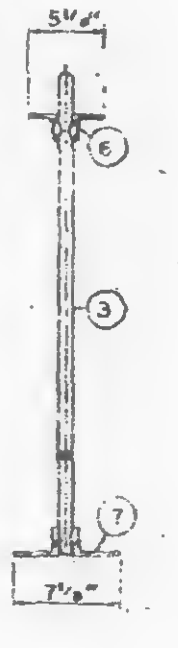
SECTION A-A



SECTION B-B



EL END (CORE)



SEELING-BELLE
CHRISTIANSEN-ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
Date 4/25/69 By SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF. DRWG.

| | |
|---|---|
| 7-AB1-13 | 10-[illegible] |
| 7-AB1-54 | 1-6-69 |
| 7-AB4-53 | 7-22-[illegible] |
| 7-AB3-2 | 1-3-[illegible] |
| 7-AB3-24 | 8-15-[illegible] |
| 7-AB4-17 | 10-[illegible] |
| SA-124 | 1-6-69 |
| 7-AB1-56 | 10-15-68 |
| 7-AB4-17.2 | 12-20-[illegible] |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | TRUSS DATA | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T14BL-5085 | 6 | A? | 2"x1½"x.25" | 59'-8½" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible]<br>[illegible]<br>[illegible] | 11K@3'-4"=36'-8"<br>2K@3'-4"=6'-8"<br>1¾K@3'-4"=5'-9" | 11 | 1.09 | 59'-3½" | — | — | — | — | | P6 | A36 | 3 | 4"x.39" | 5½" | [illegible] | A36 | 3"x2"x.37" | 7½" | P12 | A36 | [illegible] | 7½" |

COLUMN END

| TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| C32T14BL-5085 | [illegible] | A242<br>A242 | [illegible] | 2<br>1 | [illegible] | 5'-4¼" | DS | A242 | 1.14 | 2'-8¼" | CP | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CHL<br>CHR | A36<br>A36 | 10 C 30<br>10 C 30 | [illegible] |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "Sv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | |
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | LENGTH |
| [illegible] | [illegible] | [illegible] | [illegible]x.25" | 1'-6" | 5'-[illegible] | 10 | A242 | 1.14 | 5'-6⅛" | 5 | A242 | 1.14 | 2'-4⅜" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | — | — | — | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

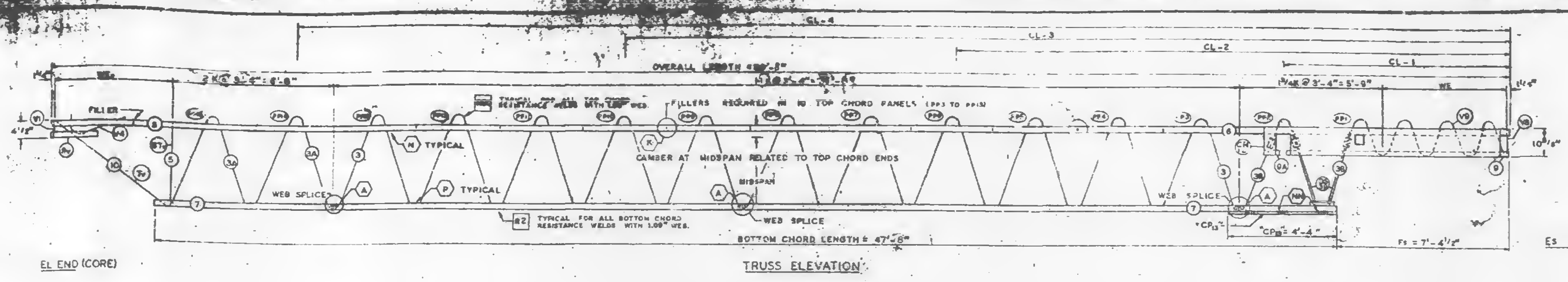
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 ½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

PAINT
LACLEDE ELECTROCOAT
REF. NO. 10001

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14BL x 59'-8½" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
DESIGN DRAWING NO. 7-AB1-13
DRAWN BY SK
DATE APRIL 11, 1969
CHECKED BY
DATE APRIL 11, 1969
IN CHARGE OF
LACLEDE STEEL CO.
DETAILED BY A. CARL WEBER
CONT. NO. 221
SHEET NO. ST 214BL

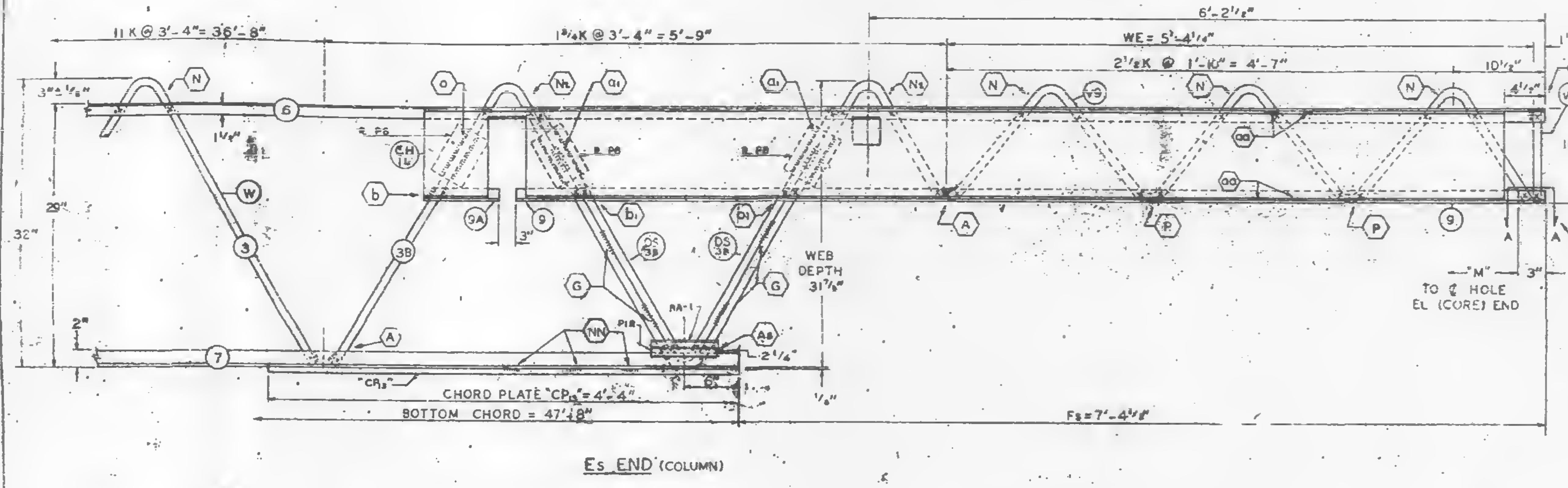

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH 59'-8"
2 K @ 3'-4" = 6'-8"
11 K @ 3'-4" = 36'-8"
1¾K @ 3'-4" = 5'-9"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09" WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB
BOTTOM CHORD LENGTH = 47'-6"
"CP13"
"CP13" 4'-4"
Fs = 7'-4½"
10⅞"

EL END (CORE)

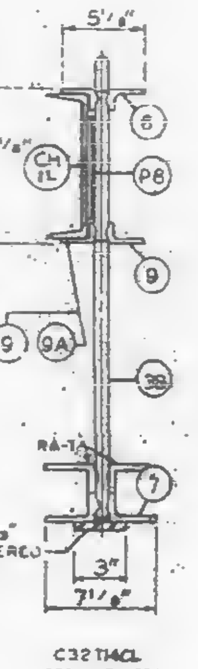
TRUSS ELEVATION

Es END (COLUMN)

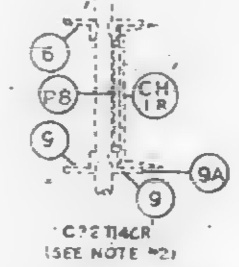
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2" | ±3/8" |
| DESIGN DEPTH | 29" | ±1/4" |
| PANEL "K" | 3'-4" | ±1/4" |
| OVERALL LENGTH | 59'-8" | ±3/8" |
| WEB DEPTH | 31 7/8" | ±1/4" |



Es END (COLUMN)



C32T14CL (SEE NOTE #2)



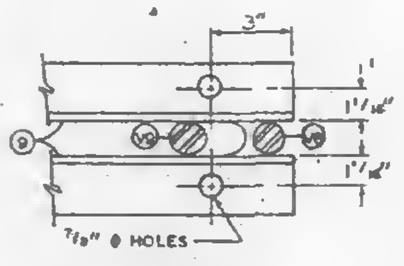
C32T14CR (SEE NOTE #2)

CH1R PLACED AS SHOWN FOR C32T14CR.
CH1L PLACED AS SHOWN FOR C32T14CL.

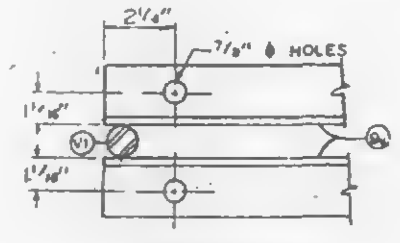
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e. RI.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

NOTE #2

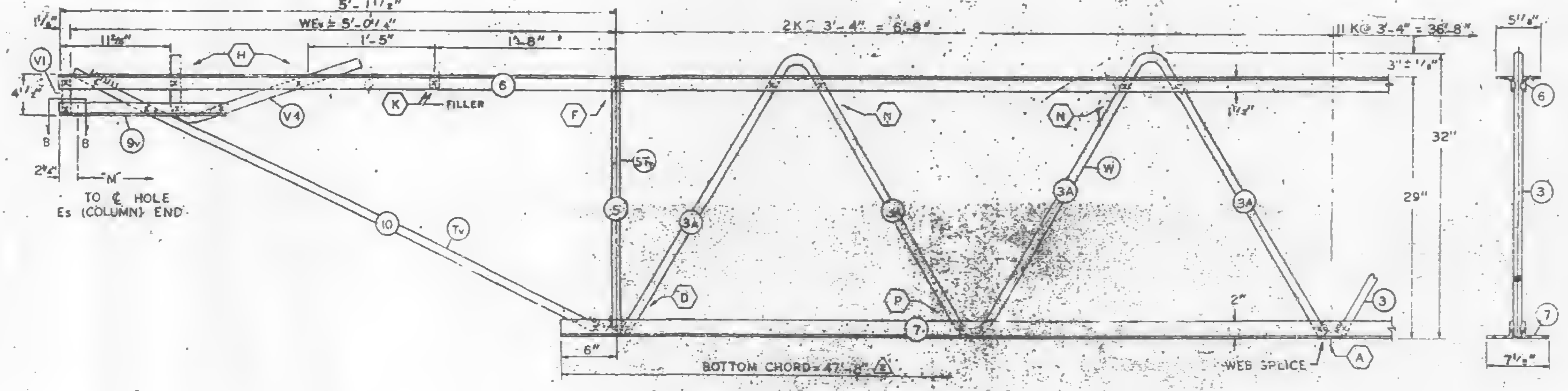
ALL DETAILS & ELEVATIONS SHOWN FOR C32T14CL
TRUSSES ARE APPLICABLE TO C32T14CR TRUSSES
WITH CHANNEL CH1R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AT SHOWN.



SECTION A-A



SECTION B-B



EL END (CORE)

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | TRUSS DATA | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T14CL | 6 | A242 | 2"x1½"x.25" | 59'-8" | 7 | A36 | 3"x2"x.37" | 47'-6" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible]<br>12'-3 [illegible]<br>10'-7⅝" | 11K@3'-4"=36'-8"<br>2K@3'-4"=6'-8"<br>1¾K@3'-4"=5'-9" | 11 | 1.09 | 59'-_ ¼" | — | — | — | — | | P8 | A36 | 3 | 4"x.39" | 5½" | RA1 | A36 | 3"x2"x.37 | 7½" | P12 | A36 | 1"x⅜" | 7¼" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T14CL-598 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 1<br>1 | 8⅞"<br>8½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | CP | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅜" | — | — | — | CH<br>CH | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V4 | | | END STIFFENER | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T14CL-598 | 9v | A242 | 2"x1½"x.25" | 1'-6" | 5'-0¼" | 10 | A242 | 1.14 | 5'-5⅝" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4⅞" | — | — | — | A242 | 1.14 | 2'-2⅜" | — | — | — | — | — | — | — | — |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF. DRWG.

| | |
|---|---|
| 7-A81-13 | 10-4-66 |
| 7-A81-54 | 11-25-68 |
| 7-A81-53 | 7-22-68 |
| 7-A83-2 | 1-3-68 |
| 7-A83-24 | 8-15-68 |
| 7-A84-17,17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-A81-53 | 10-15-68 |

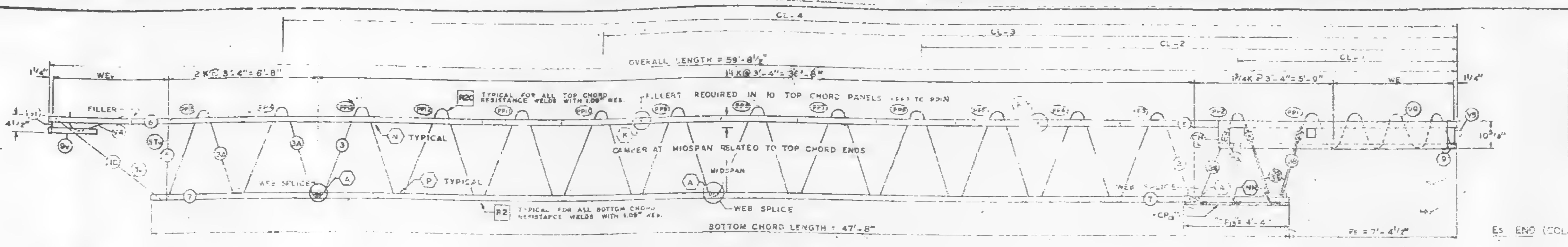
PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T14CL x 59'-8" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-13 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White | DATE 4/7/69 | DRAWN BY G.B.C. DATE MAR 28 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T. NAKAMURA DATE MAR 28, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO. | | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST 214CL |

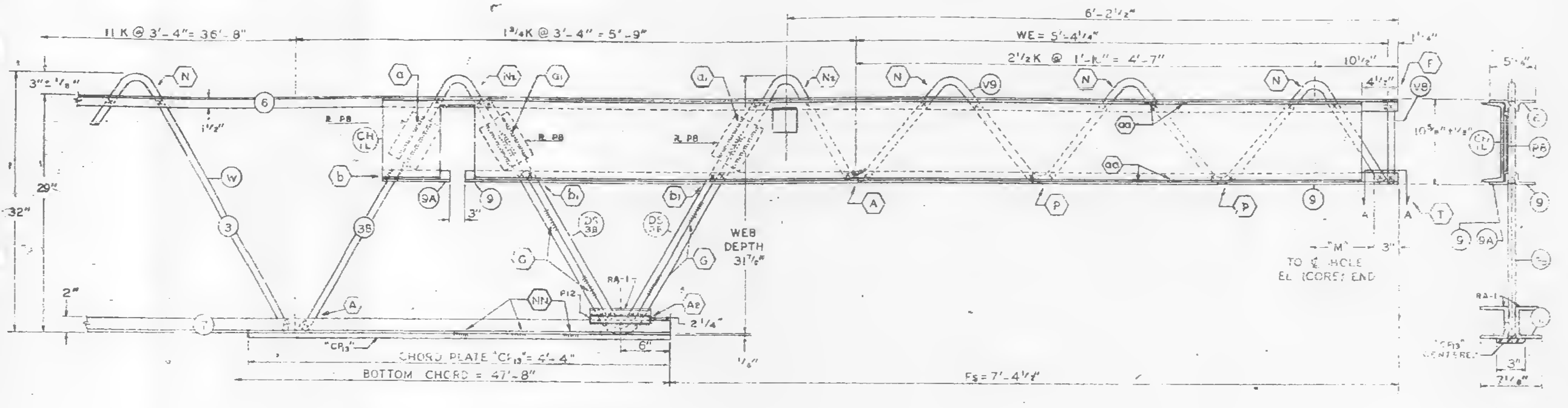

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8½"
WE
2K@3'-4" = 6'-8"
11K@3'-4" = 36'-8"
1¾K@3'-4" = 5'-9"
FILLER
R20 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09" WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
N TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
P TYPICAL
WEB SPLICE
R2 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB
BOTTOM CHORD LENGTH = 47'-8"
CP13 = 4'-4"
FS = 7'-4¼"
10⅝"

EL END (CORE)

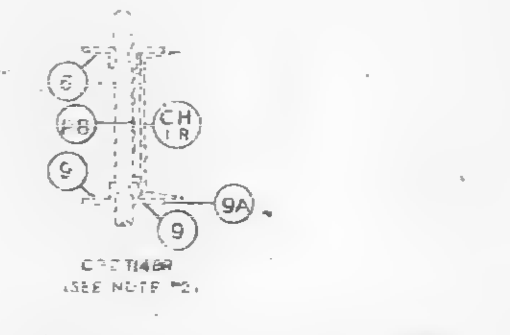
TRUSS ELEVATION

ES END (COLUMN)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



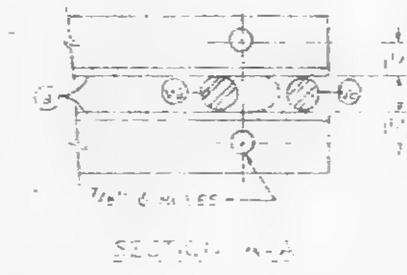
ES END (COLUMN)


6
PB
9
CH
9A
C32T14BR (SEE NOTE 2)
CH1 PLACED AS SHOWN FOR C32T14BR.
CH1 PLACED AS SHOWN FOR C32T14BL.

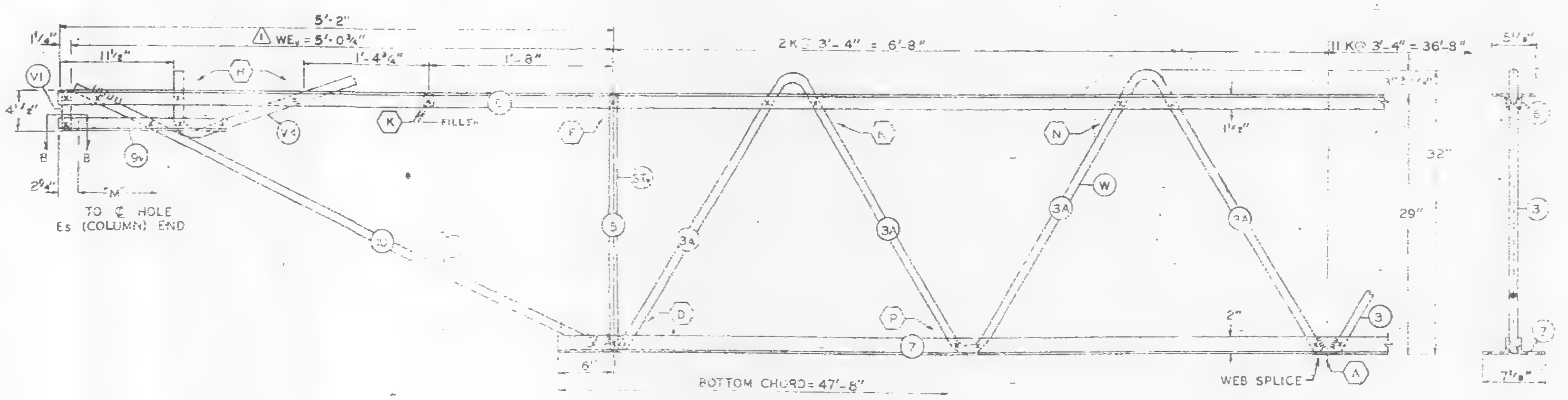
ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R11.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 293 AND ST 283.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR VI & V4 DETAILS.

NOTE #2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T14BL
TRUSSES ARE APPLICABLE TO C32T14BR TRUSSES
WITH CHANNEL CH1 AND BEARING ANGLE 9A
PLACED [illegible]



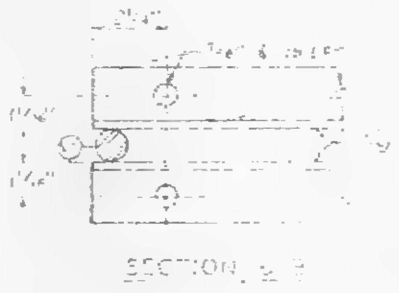
SECTION A-A



BOTTOM CHORD = 47'-8"

WEB SPLICE

EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 6-16-69 | AS NOTED | G.D.C. |

REF DRWGS.
7-A81-13 10-4-68
7-A81-54 1-6-69
7-A81-53 7-22-68
7-A83-2 1-3-68
7-A83-24 8-15-68
7-A84-17 10-4-68
SA-124 1-6-69
7-A81-55 10-15-68
7-A84-17.2 12-20-68

PAINT
LACLEDE [illegible]
[illegible] NO. [illegible]

| TRUSS DESIGNATION | CHORD ANGLES |  |  | BOTTOM CHORD TWO ANGLES |  |  | MAIN WEB "W" |  |  |  |  | FILLER |  | "X" C/L HOLES | CHORD PLATE |  |  |  | TRUSS DATA | CHANNEL PLATES |  |  |  |  | REINFORCING ANGLES |  |  |  | SPECIAL PLATES |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | TYPE STEEL | CHORD SIZE | LENGTH | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. |  | MK | TYPE STEEL | SIZE | LENGTH |  | MK | TYPE STEEL | PCS | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| 32T14BL-5985 | A242 | 2"x1½"x.25" | 59'-8½" | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 68'-0¼"<br>7'-5½"<br>10'-7⅞" | 11K@3'-4" = 36'-8"<br>2K@3'-4" = 6'-8"<br>1¾K@3'-4" = 5'-9" | 11 | 1.09 | 59'-3¼" | — | — | — | — |  | [illegible] | A36 | 3 | 4½"x.39" | 5½" |  | A36 | 3"x2"x.37" | 7½" | F12 | A36 | 1"x⅝" | 7½" |

| ES COLUMN END | TRUSS DESIGNATION | BEARING ANGLES |  |  |  |  | WE | DOUBLE STRUT |  |  |  | CHORD PLATE |  |  |  | END STIFFENER MK. V8 |  |  | MK. V9 |  |  | MK. V10 |  |  | CHANNEL (SEE NOTE 2) |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
|  | C32T[illegible]-5985 | 9A | A242 | 2"x1½"x.25" | [illegible] | [illegible] | 5'-4¼" | [illegible] | A242 | 1.14 | 2'-6¾" | CP13 | A36 | 3"x.25 | 4'-4" | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1<br>CH[illegible] | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANSFERS |  |  |  |  |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 |  |
| 9'-6½" | [illegible]-10½" | 35'-2½" | 49'-6½" | 7'-4¼" |

| EA CORE END | TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WE1 | DIAGONAL "T1" STRUT |  |  |  | VERTICAL "ST1" STRUT |  |  |  | END STIFFENER MK. V1 |  |  | MK. V2 |  |  | MK. V4 |  |  | DOUBLE STRUT |  |  |  | DOUBLE STRUT |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK | TYPE STEEL | CHORD SIZE | LENGTH | ⚠1 | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH |
| END | C32T14BL-5985 | 9v | A242 | 2"x1½"x.25" | 1'-6" | 5'-0¾" | 10 | A242 | 1.14 | 5'-6⅛" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2¼" | — | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS

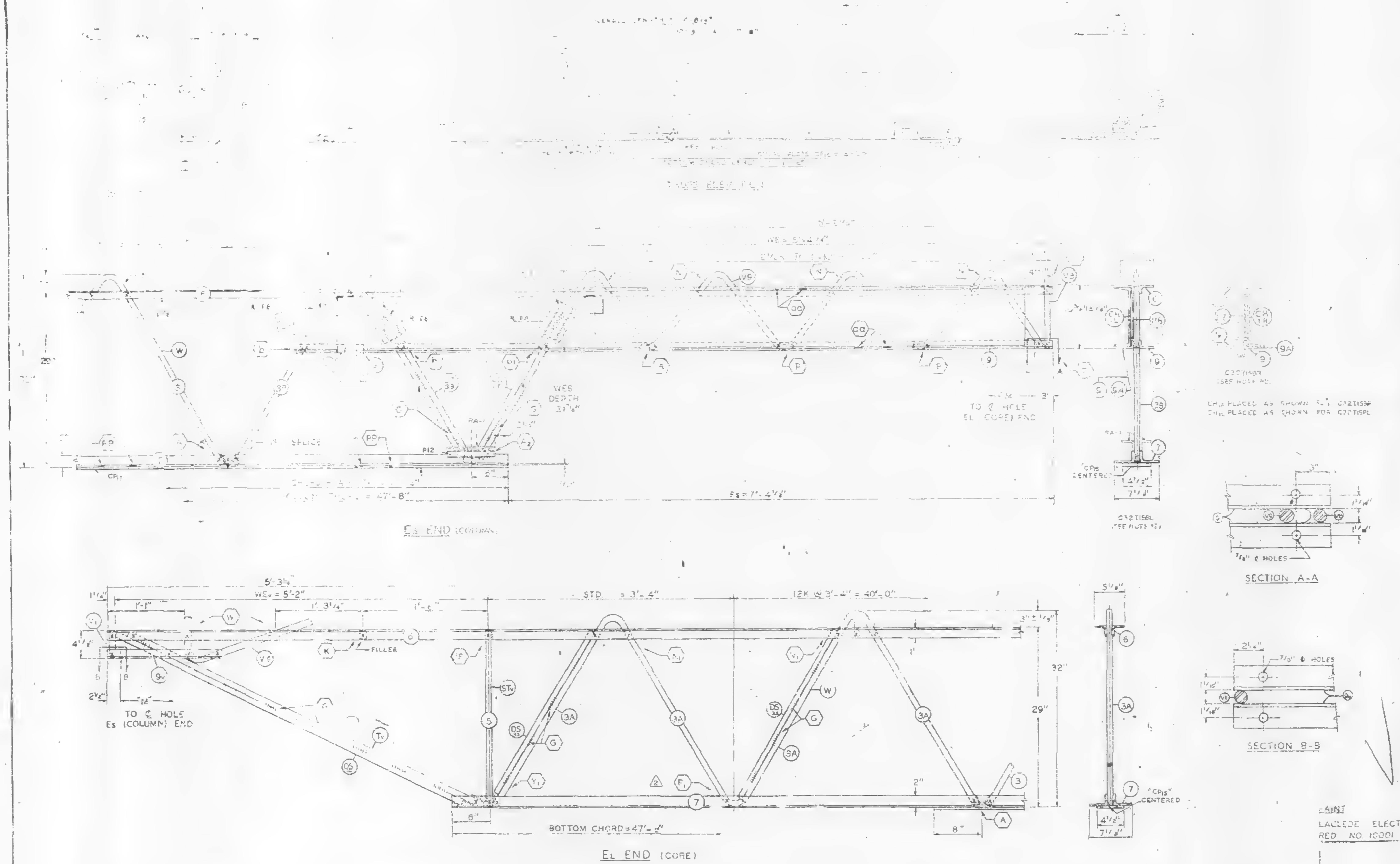
[illegible]

[illegible]

FLOOR TRUSS C32T14BL x 59' 8½" LONG (SEE NOTE #2)
WORLD TRADE CENTER, TOWER A & B

[illegible] BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATE AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-13 | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. | DATE 7/28/69 | DRAWN BY gdc<br>DATE APRIL 11, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA<br>DATE APRIL 11, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO.<br>DETAILED BY A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 2148 |



GENERAL NOTES [illegible]
ALL CHANNEL DETAILS SHOWN ON SHEET ST-40A.
CHORD PLATE DETAILS SHOWN ON SHEET ST-293.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.
ALL WELD DETAILS SHOWN ON SHEETS ST290 ST291, ST292 & ST293.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T15BL TRUSSES ARE APPLICABLE TO C32T15BR TRUSSES WITH CHANNEL CH1 AND BEARING ANGLE 9A PLACED ON OPP. HAND [illegible]

| NO | DATE | REVISION | BY |
|---|---|---|---|

Void

| REF. DRWG. | |
|---|---|
| 7-AB1-14 | 10-4-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 | 10-4-68 |
| SA-124 | 1-6-69 |
| 7-AB1-55 | 10-15-68 |
| 7-AB4-17.2 | 12-20-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | FILLER NO. | DIA. | "M" C/C HOLES | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH | CONNECTION FILLER NO. | DIA. | LENGTH | CHANNEL PLATES MK. | TYPE STEEL | PCS. | SIZE | LENGTH | REINFORCING ANGLES MK. | TYPE STEEL | ANGLE SIZE | LENGTH (2 REQ'D) | SPECIAL PLATES MK. | TYPE STEEL | SIZE | LENGTH (2 REQ'D) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-59[illegible] | 6 | A242 | 2"x1½"x.37" | 59'-8½" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | 15'-8¼"<br>12'-5½"<br>10'-7⅝" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 12 | 1. | 59'-3¼" | CP15 | A36 | 4"x.39" | 41'-2" | 4 | 1.14 | 3" | P8 | A36 | 3 | 4"x.39" | 5' | [illegible] | A36 | 3"x2"x.37" | 7½" | 12 | A36 | [illegible] | 7½" |

| COL END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | WE | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL (SEE NOTE #2) MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-5985 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 6'-5"<br>8½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1<br>CH2 | A36<br>A36 | 10C30<br>10C30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | |
|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 |
| 9'-6" | 22'-10½" | 36'-2½" | 4[illegible]-6½" |

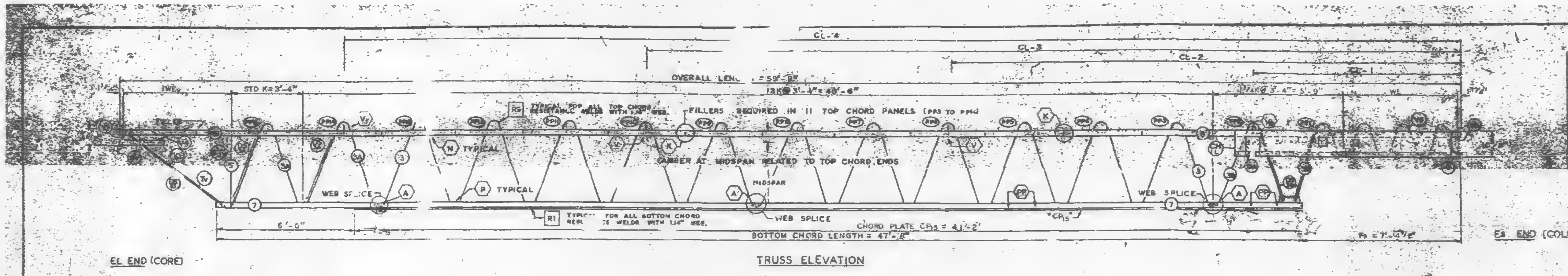
| CORE END EL END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "Tv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | VERTICAL "STv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA. | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-5985 | 9A | A242 | 2"x1½"x.25" | 1'-6" | 5'-2" | 10 | A242 | 1.14 | 5'-3¾ | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | DS15 | A242 | .75 | 5'-3¾ | | A242 | .75 | 2'-6¾" | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T15BL x 59'-8½" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-14 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. — DATE | DRAWN BY: gdc DATE APRIL 11, 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR — DATE | CHECKED BY: T.M. CHURA DATE APRIL 11, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER LACLEDE STEEL CO. | FABRICATION CONT. NO. W.T.C. -221 | SHEET NO. ST-215BL |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
12K @ 3'-4" = 40'-0"
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB
FILLERS REQUIRED IN 11 TOP CHORD PANELS (PP3 TO PP14)
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB
CHORD PLATE CP15 = 41'-2"
BOTTOM CHORD LENGTH = 47'-8"
Fs = 7'-4½"
EL END (CORE)
Es END (COLUMN)

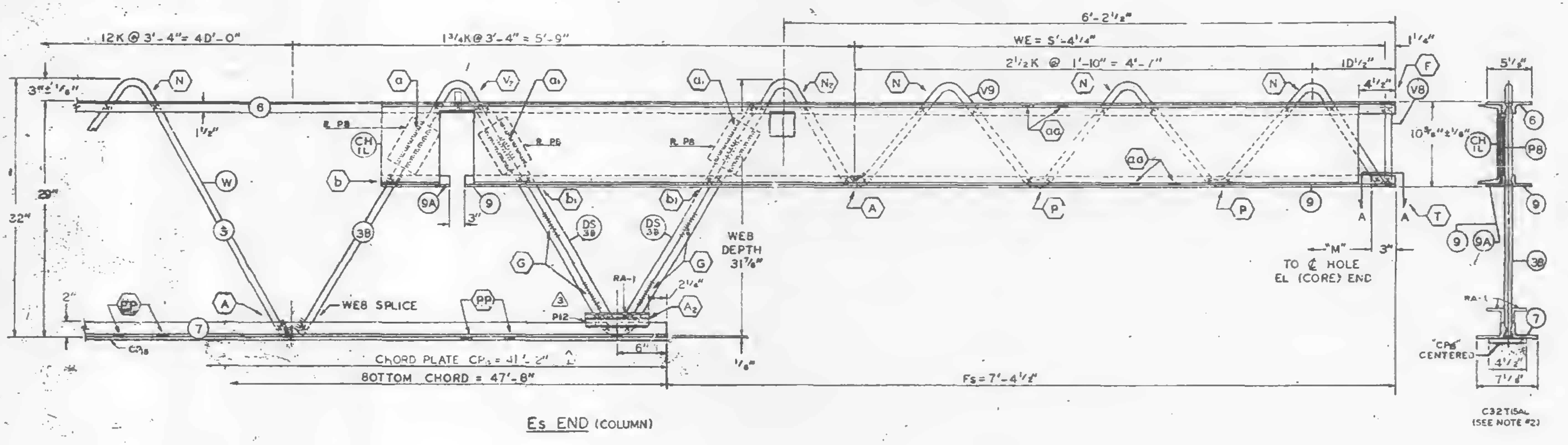
TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| [illegible] DEPTH | 29" | [illegible] |
| [illegible] | [illegible] | [illegible] |
| [illegible] LENGTH | 59'-9" | [illegible] |
| [illegible] | 3'-8" | [illegible] |

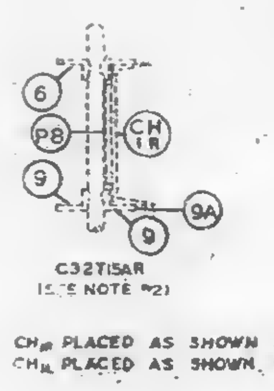
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., RI.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR VI & V4 DETAILS.

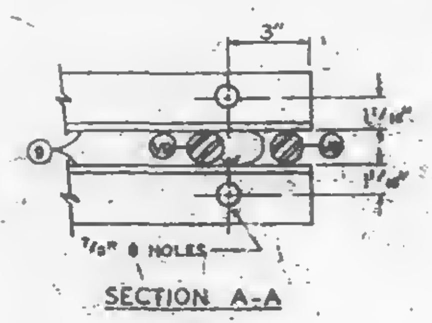
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T15AL
TRUSSES ARE APPLICABLE TO C32T15AR TRUSSES
WITH CHANNEL CHIR AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.

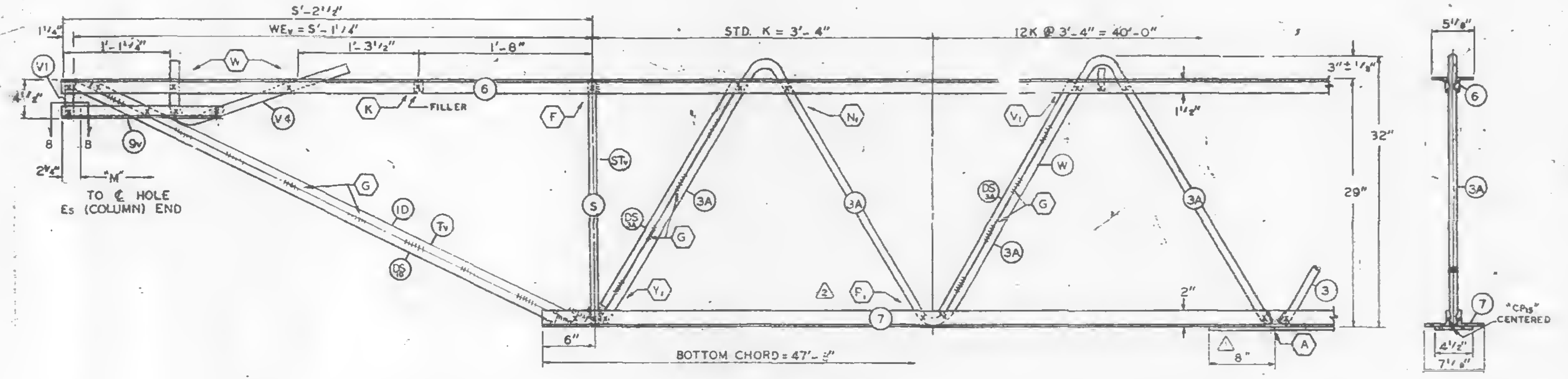


Es END (COLUMN)

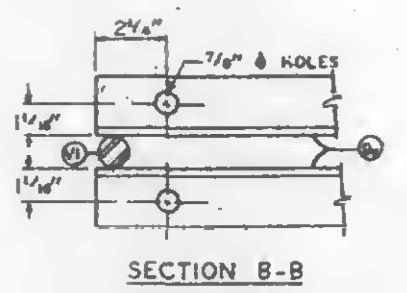

C32T15AR (SEE NOTE #2)
CHIR PLACED AS SHOWN FOR C32T15AR.
CHIL PLACED AS SHOWN FOR C32T15AL.



SECTION A-A



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 12-10-68 | AS NOTED | G.D.C. |
| 2 | 11-7-68 | AS NOTED | G.D.C. |
| 1 | 10-31-68 | CP15 | LWH |

| 2 REF. DRWG. | |
|---|---|
| 7-ABI-18 | 10-4-68 |
| 7-ABI-54 | 11-25-68 |
| 7-ABI-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-ABI-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE 1 | | | | CONNECTION FILLER | | | CHANNEL PLATES | | | | | REINFORCING ANGLES 3 | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T15AL-599 | 6 | A242 | 2"x1½"x.37" | 59'-9" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | 68'-6¼"<br>12'-5½"<br>10'-7⅝" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 12 | 1.14 | 59'-3¾" | CP15 | A36 | 4½x.30 | 41'-2" | 4 | 1.14 | 3" | P8 | A36 | 3 | 4½x.36 | 5½" | [illegible] | A36 | 3"x2½x.37" | 7½" | [illegible] | A36 | 1"x⅞" | 7½" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | 3 | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | | C32T15AL-599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS3B | A242 | 1.14 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CHIL<br>CHIR | A36<br>A36 | 10[30<br>10[30 | 10'-0"<br>10'-0" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | |
| | | 3 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH |
| | | C32T15AL-599 | 9v | A242 | 2"x1½"x.25" | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-4⅞" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | [illegible]⅞" | — | — | — | A242 | 1.14 | 2'-2½" | DS1D | A242 | .75 | 5'-4⅞" | DS3A | A242 | .75 | 2'-6¾" | — | — | — | — |

2

CHECK DIMENSION FOR TRUSS FAB.

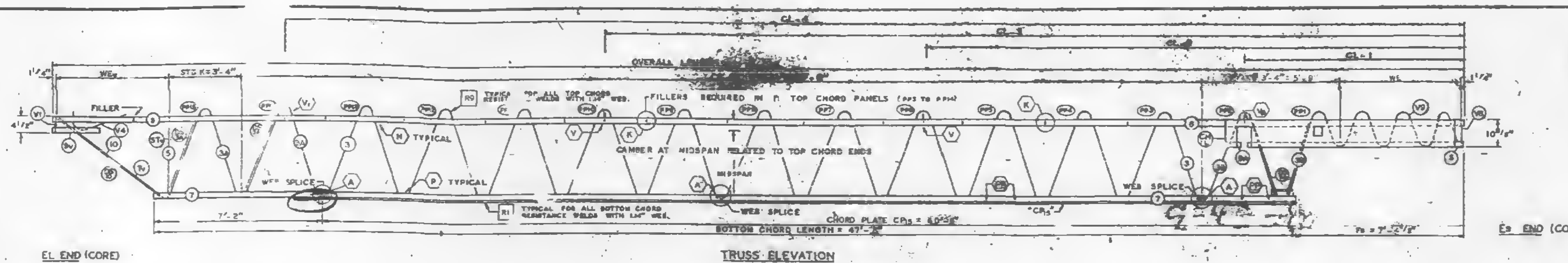
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T15AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

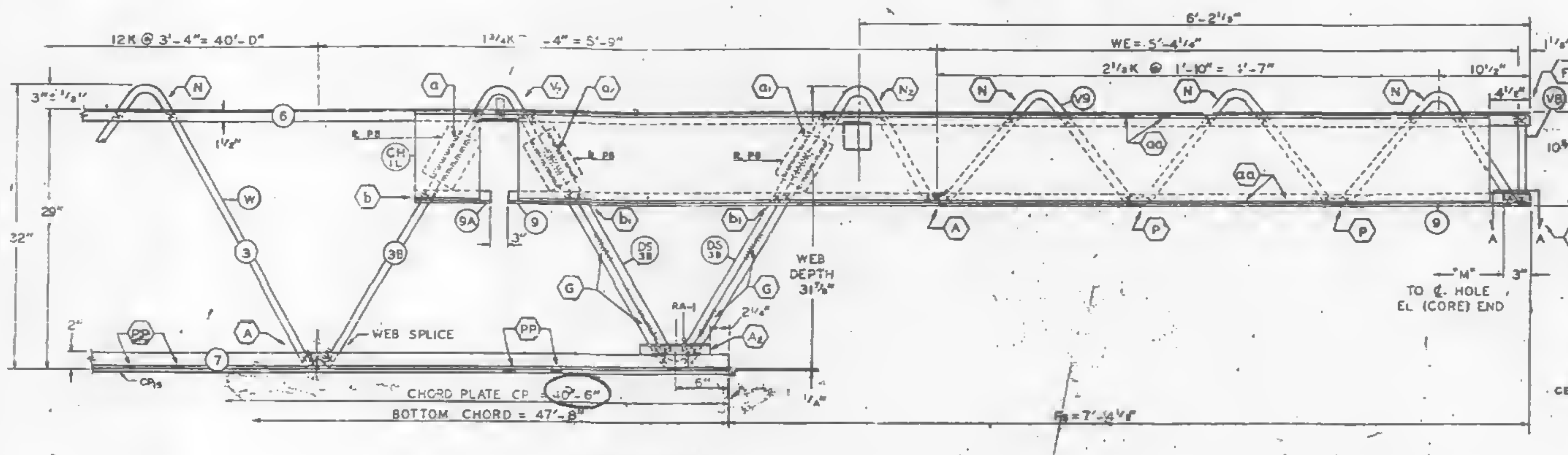
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-ABI-14 | PLATE |
| APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. | DATE 12/16/68 | DRAWN BY: gdc<br>DATE OCT. 1, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE OCT. 1, 1968 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO.<br>DETAILED BY: A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 215AL |


OVERALL LENGTH
CL-4
CL-3
CL-2
CL-1
WE
STD K = 3'-4"
FILLER
FILLERS REQUIRED IN  TOP CHORD PANELS
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
CHORD PLATE CP
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 47'-8"
Fs = 7'-4 1/2"
10 1/2"
4 1/2"
1 1/2"

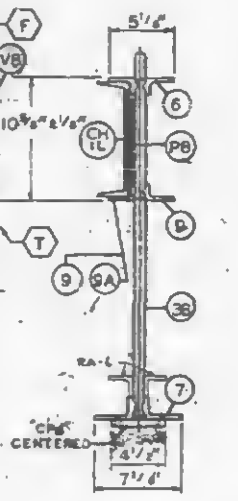
EL END (CORE)

**TRUSS ELEVATION**

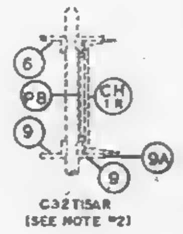
Es END (COLUMN)



Es END (COLUMN)



C32T15AL (SEE NOTE #2)



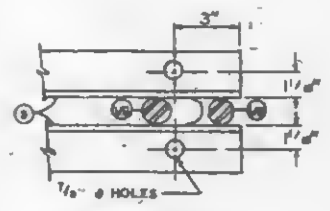
C32T15AR (SEE NOTE #2)

CH18 PLACED AS SHOWN FOR C32T15AR.
CH18 PLACED AS SHOWN FOR C32T15AL.

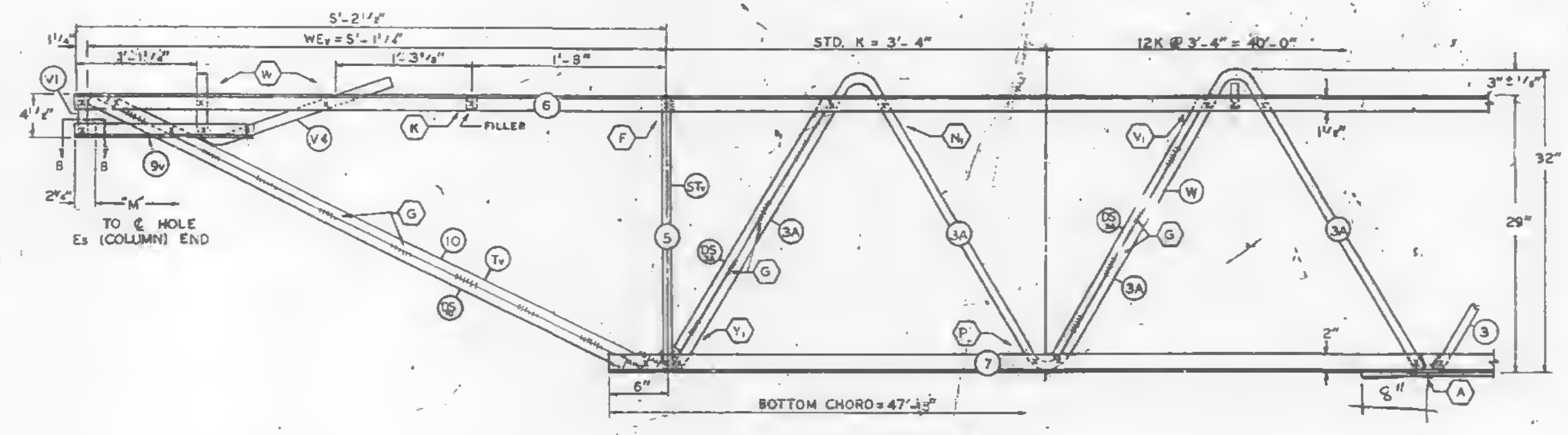
ALL PANEL POINTS RESISTANCE WELDED (A).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL. i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. i.e., R1.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 & V4 DETAILS.

NOTE 2

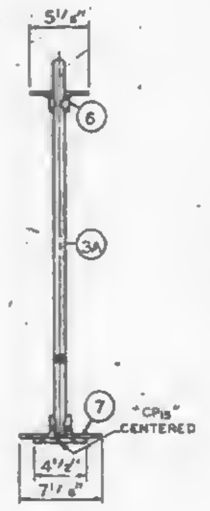
ALL DETAILS & ELEVATIONS SHOWN FOR C32T15AL TRUSSES ARE APPLICABLE TO C32T15AR TRUSSES WITH CHANNEL CH18 AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

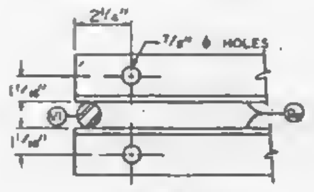


SECTION A-A



EL END (CORE)





SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| | | | |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| NO. | DATE | REVISION | BY |

| REF. DRWG. | |
|---|---|
| 7-AB1-15 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53 & 55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| SA-124 | 8-1-68 |

SKILLING · HELLE CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
24 68 .. SK

**PAINT**
LACLEDE ELECTROCOAT
RED NO. 1DD01

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄-℄ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | |
| 24T15AL-599 | 6 | A242 | 2"x1 1/2"x.37" | 59'-[illegible] | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | [illegible]<br>[illegible]<br>[illegible] | 12K @ 3'-4" = 40'-0"<br>2K @ 3'-4" = [illegible]<br>1 3/4 K @ 3'-4" = 5'-9" | 12 | 1.14 | 59'-3 3/4" |

| TRUSS DESIGNATION | CHORD PLATE | | | | CONNECTION FILLER | | | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH |
| 24T15AL-599 | CP15 | A36 | [illegible] | 10'-6" | 4 | 1.14 | 3" | P8 | A36 | 3 | [illegible] | 5 1/2" | RA1 | A36 | 2 | 3"x 2"x .37" | 7 1/2" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | 24T15AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH18<br>CH18 | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH |
| | 24T15AL-599 | 9v | A242 | 2"x1 1/2"x.25" | 1'-7" | 5'-1 1/4" | 10 | A242 | 1.14 | 5'-4 7/8" | 5 | A242 | 1.14 | 2'-4 3/4" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | DS | A242 | .75 | 5'-4 7/8" | DS | A242 | .75 | 2'-6 3/4" | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

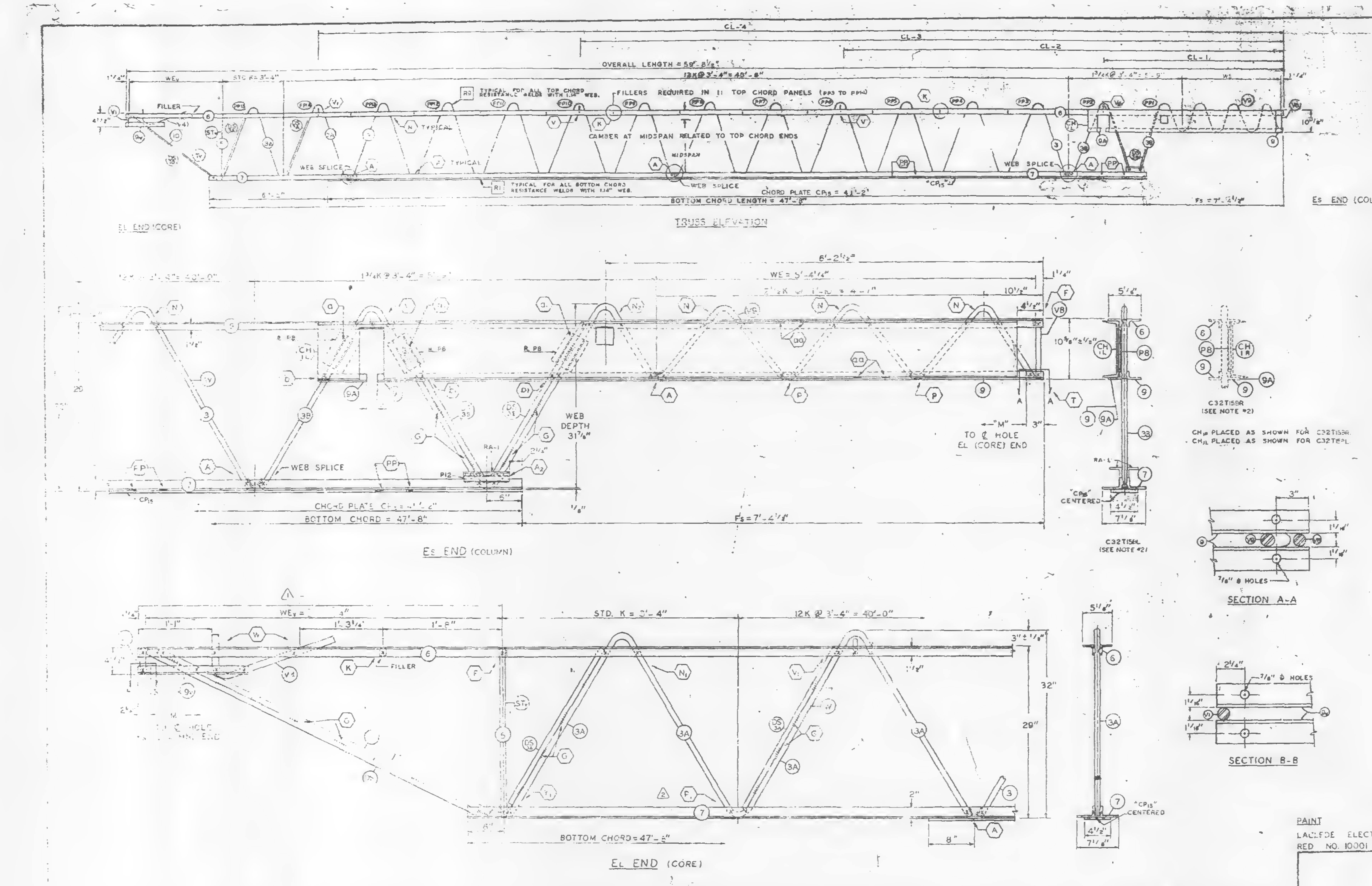
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T15AL x 59'-9" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE | DRAWN BY gdc<br>DATE OCT. 1, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA<br>DATE OCT. 1, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 215AL |



ALL PANEL POINTS RESISTANCE WELDED. [illegible] ARC WELDS INDICATED AT [illegible] AND AT BOTTOM CHORD WEB SPLICES. [illegible] LETTERS IN HEXAGON INDICATE WELD [illegible] (A). LETTERS AND NUMBERS IN [illegible] INDICATE RESISTANCE WELD STRENGTH [illegible] IN THE QUALITY CONTROL PROGRAM [illegible] ALL WELD DETAILS SHOWN [illegible] ST290, ST291, ST292 & ST293. ALL CHANNEL DETAILS SHOWN [illegible] SHEET ST402. CHORD PLATE DETAILS SHOWN ON SHEET ST253. SEE SHEET ST295 FOR V1 & V4 DETAILS.

NOTE 2

ALL DETAILS [illegible] C32T15BL [illegible] TRUSSES ARE [illegible] C32T15BR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE [illegible] PLACED ON OPP. [illegible]

| FABRICATION REQUIREMENTS 1 | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2⅛" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | [illegible] | [illegible] 4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| [illegible] | 6-5-69 | AS NOTED | G.D.C. |
| | | NOTED | |

REF DRWG
[illegible] 10-4-68
[illegible] 1-6-69
[illegible] 7-20-68
[illegible] [illegible]-3-68
[illegible] 5-15-68
[illegible] 10-4-68
[illegible] 1-6-69
[illegible] 5-15-68
7-A84-172 12-20-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS | TOP CHORD TWO ANGLES | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLER | | | CHANNEL PLATES | | | | | EINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C3[illegible]5BL-5985 | A242 | 2"x[illegible].37" | 59'-8½" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>35 | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | 68'-6¼"<br>12'-5½"<br>10'-7⅞" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 12 | 1.14 | 5[illegible]-3¼" | CP15 | A36 | 4½x.39" | 41'-2" | 4 | 1.14 | 3" | P8 | A36 | 3 | 4½x.39" | 5½ | RA1 | A36 | 3"x2"x.37" | 7½" | P12 | A36 | [illegible] | 7½" |

| END | TRUSS | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V1C | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| ES END | C32T15BL-5985 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 6'-5"<br>8½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | - | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1R<br>CH1L | A36<br>A36 | 10[illegible]30<br>10[illegible]30 | 10'-[illegible]<br>10'-[illegible] |

| CHECK DIMENSION FOR TRUSS FA8 | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | S |
| 9'-6½" | 22'-10⅛" | 36'-2½" | 49'-6½" | 7'-[illegible]3" |

| CORE END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | ⚠1 | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH |
| EL END | C32T15BL-5985 | 9v | A242 | 2"x1½"x.25" | 1'-6" | [illegible] | 10 | A242 | 1.14 | 5'-4⅜" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | [illegible] | [illegible] | [illegible] | A242 | 1.14 | 2'-2½" | DS | A242 | .75 | 5'-4¾" | [illegible] | A242 | .75 | 2'-6¾" | — | — | [illegible] | [illegible] |

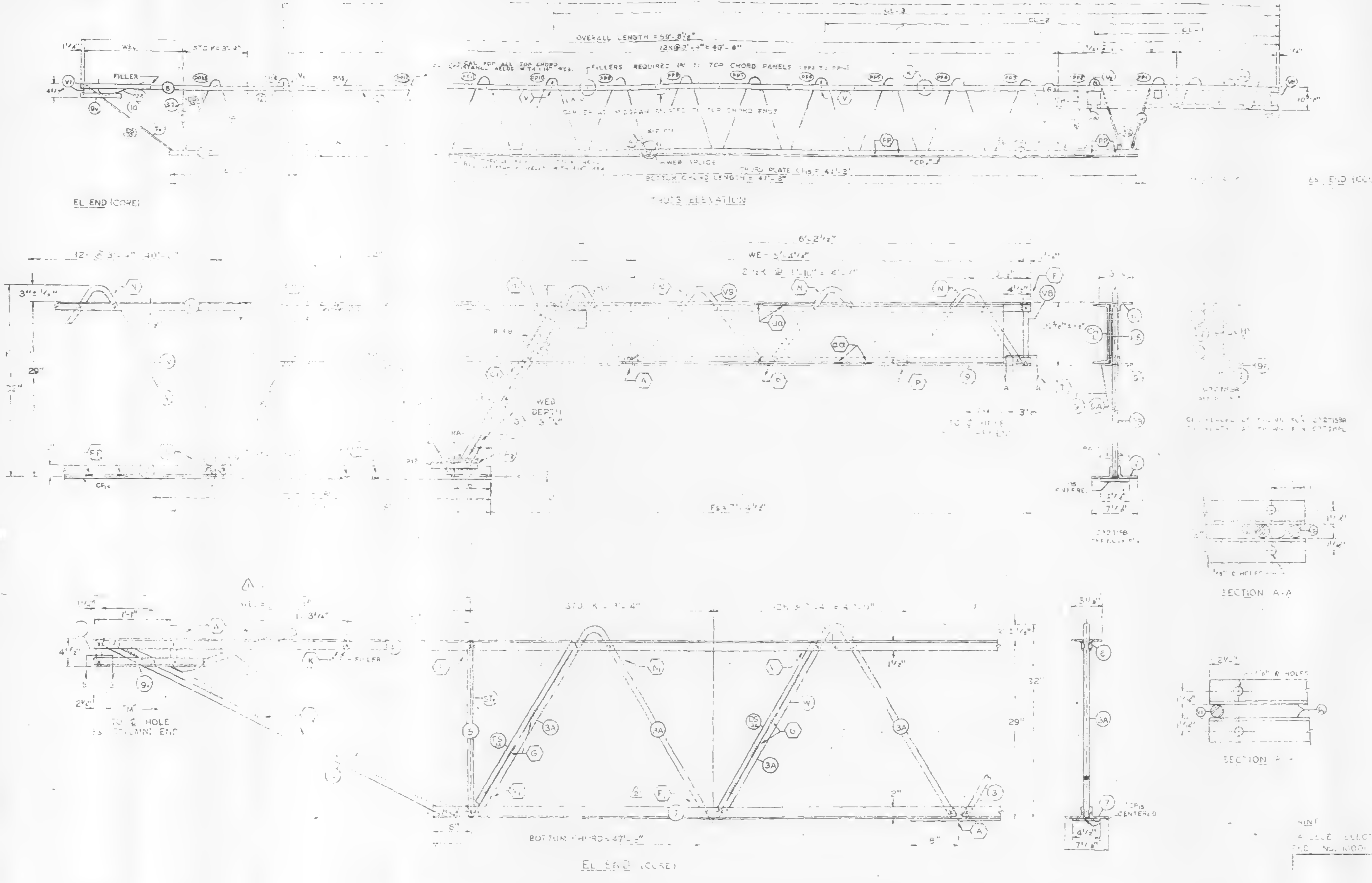
FLOOR TRUSS [illegible]
FOR
WORLD TRADE CENTER [illegible]
[illegible]
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T15BL x [illegible]-8½" [illegible] SEE NOTE #2

WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-14 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A | DATE 8/11/69 | DRAWN BY gdc<br>DATE APRIL 11, 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR<br>LACLEDE STEEL CO. | DATE | CHECKED BY T.M. CHURA<br>DATE APRIL 11, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO W.T.C. 221 | SHEET NO. ST 215BL |



## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¹/₁₆" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED. (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL (A)
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM. [RH]
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST[illegible]
[illegible] SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR V1 & V4 DETAILS.

NOTE 2

[illegible] SHOWN FOR C32T15BL TRUSSES ARE [illegible] TO C32T15BR TRUSSES WITH CHANNEL [illegible] BEARING ANGLE [illegible]

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWG.

| | |
|---|---|
| 7-A81-14 | 10-4-68 |
| 7-A81-54 | 1-6-69 |
| 7-A81-53 | 7-22-68 |
| 7-A83-2 | 1-3-68 |
| 7-A83-24 | 8-15-68 |
| 7-A84-17 | 10-4-68 |
| 5A-124 | 1-6-69 |
| 7-A81-55 | 10-15-68 |
| 7-A84-17.2 | 12-20-68 |

PAINT
[illegible] ELECTRI COAT
[illegible] NO. 1000

| TRUSS DESIGNATION | [illegible] | MAIN WEB "W" TYPE STEEL | DIA | LENGTH | NO. OF | FILLER NO. | DIA | HOLES | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CONNECTION FILLER NO. | DIA. | LENGTH | CHANNEL PLATES MK | TYPE STEEL | [illegible] | SIZE | L | REINFORCING ANGLES MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | SPECIAL PLATES MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-5985 | A242 [illegible] 8½ [illegible] 8 | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | [illegible] | [illegible] | 12 | 1 | 59'-3¼" | CP | A36 | 4½ x .39 | 41'-2" | 4 | 1.14 | 3" | PB | A36 | [illegible] | 4½x.36 | 5½" | RA | A36 | 3" x 2" x .37" | 7'-2" | P | A36 | [illegible] | [illegible] |

CHECK DIMENSION FOR TRUSS [illegible]

| LOCATION [illegible] | | | |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | |
| [illegible] | 22 [illegible] | 36'-[illegible] | [illegible] |

**COLUMN END**

| TRUSS DESIGNATION | [illegible] | CHORD PLATE TYPE STEEL | SIZE | [illegible] | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V1 TYPE STEEL | DIA. | LENGTH | CHANNEL (SEE NOTE #2) MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-5985 | [illegible] A242 1.14 [illegible] | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | [illegible]<br>[illegible] | A36<br>A36 | 10 [ 30<br>10 [ 30 | 10'-0"<br>10'-0" |

**CORE END**

| TRUSS DESIGNATION | MK | [illegible] | [illegible] | [illegible] | MK | TYPE STEEL | DIA | LENGTH | VERTICAL STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA. | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T15BL-5985 | 9 | A24[illegible] | [illegible] | 1'-6" | 10 | A242 | 1.14 | [illegible]3¾ | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅞" | — | — | — | A242 | 1.14 | 2'-2½" | DS | A242 | .75 | 5' | DS | A242 | .75 | 2'-[illegible]¾" | — | — | — | — |

FLOOR TRUSS DETAILS

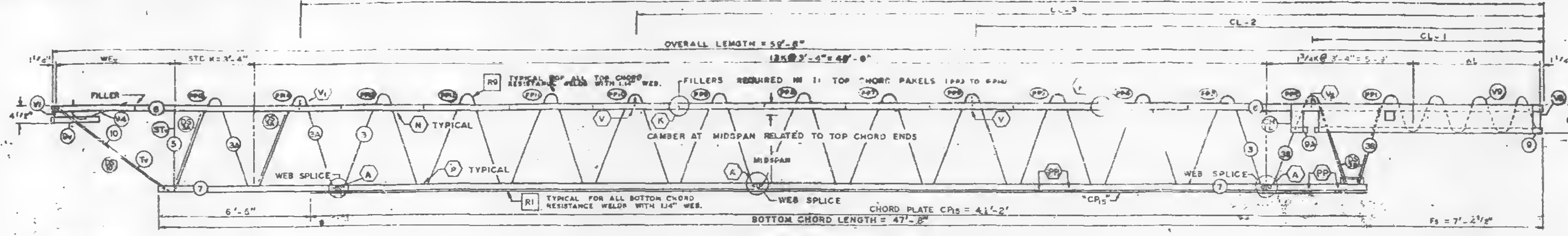
[illegible] AUTHORITY

FLOOR TRUSS C32T15BL 8½" [illegible] (SEE NOTE #2)

WORLD TRADE CENTER TOWERS A & B

STEEL [illegible]

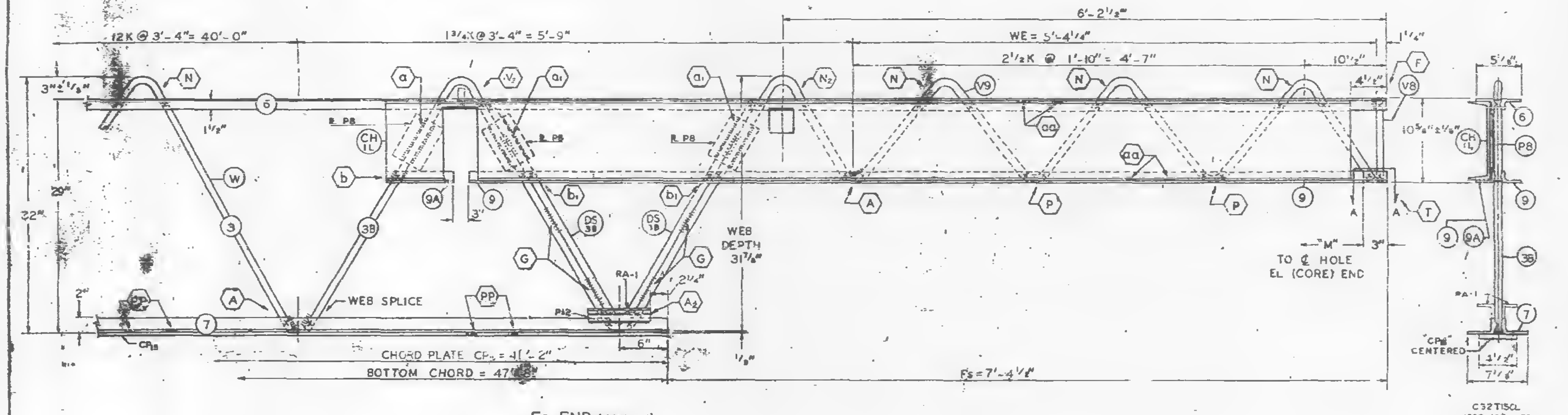
[illegible] 7-A81-14
APPROVED FOR FABRICATION 6/4/69
DRAWN BY gdc
DATE APRIL 11, 1969
CHECKED BY [illegible] CHURA
DATE APRIL 11, 1969
[illegible] FABRICATION
FABRICATION CONT NO. [illegible] 221
BY CARL WEBER
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO. ST 215BL


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
12K @ 3'-4" = 40'-0"
1¾K @ 3'-4" = 5'-9"
STD K = 3'-4"
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB.
FILLERS REQUIRED AT TOP CHORD PANELS
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB.
WEB SPLICE
"CP15"
6'-6"
CHORD PLATE CP15 = 41'-2"
BOTTOM CHORD LENGTH = 47'-8"
Fs = 7'-2½"

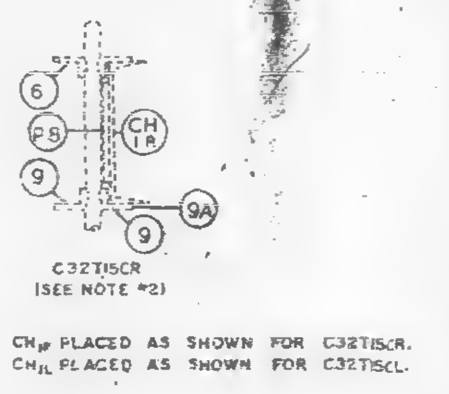
EL END (CORE)

TRUSS ELEVATION

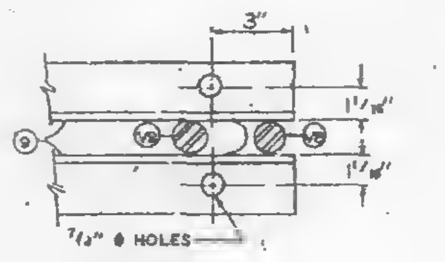
Es END (COLUMN)



Es END (COLUMN)



CH1R PLACED AS SHOWN FOR C32T15CR.
CH1L PLACED AS SHOWN FOR C32T15CL.



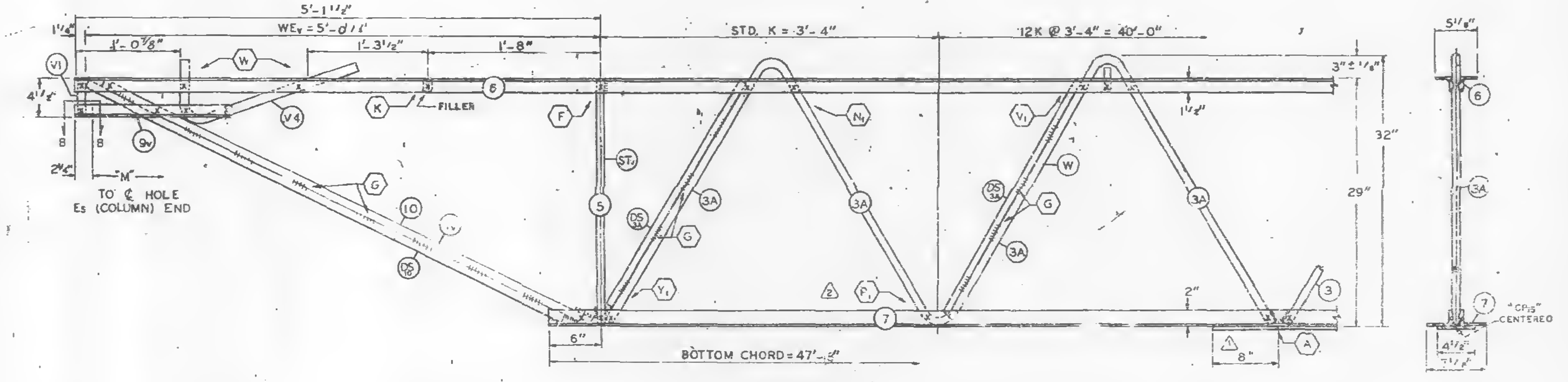
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., Ⓐ.
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM. ie., R1 .
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR V1 & V4 DETAILS.

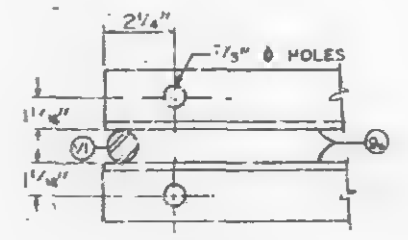
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T15CL
TRUSSES ARE APPLICABLE TO C32T15CR TRUSSES
WITH CHANNEL CH1R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2¼" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF DRWG.

| | |
|---|---|
| 7-AB1-14 | 10-4-68 |
| 7-AB1-54 | 10-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CHORD PLATE | | | | CONNECTION FILLER | | | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T15C[illegible]98 | 6 | A242 | 2"x1½"x.37" | 59'-8" | 7 | A36 | 3"x2"x.37" | 47'-8" | 3<br>3A<br>3B | A242<br>A242<br>A242 | 1.14"<br>1.14"<br>1.14" | [illegible]<br>12'-5½"<br>10'-7⅝" | 11K @ 3'-4" = 36'-8"<br>2K @ 3'-4" = 6'-8"<br>1¾K @ 3'-4" = 5'-9" | 12 | 1.14 | 59'-2¾ | CP15 | A36 | 4½x.39 | 41'-2" | 4 | 1.14 | 3" | PB | A36 | 3 | 4½x.36 | 5½" | [illegible] | A36 | 3"x2"x.37" | 7½" | 12 | A36 | 1"x⅝" | 7½" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL (SEE NOTE #2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T15CL-598 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS 3B | A242 | 1.14 | 2'-6¾" | - | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅛" | — | — | — | CH1R<br>CH1L | A36<br>A36 | 10[30<br>10[30 | 10'-0"<br>10'-0" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL STv STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T15CL-598 | 9v | A242 | 2"x1½"x.25" | 1'-6" | 5'-0¼" | 10 | A242 | 1.14 | 5'-4⅛" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | DS 10 | A242 | .75 | 5'-4¼" | DS 3A | A242 | .75 | 2'-6¾" | — | — | — | — |

COLUMN END

CORE END

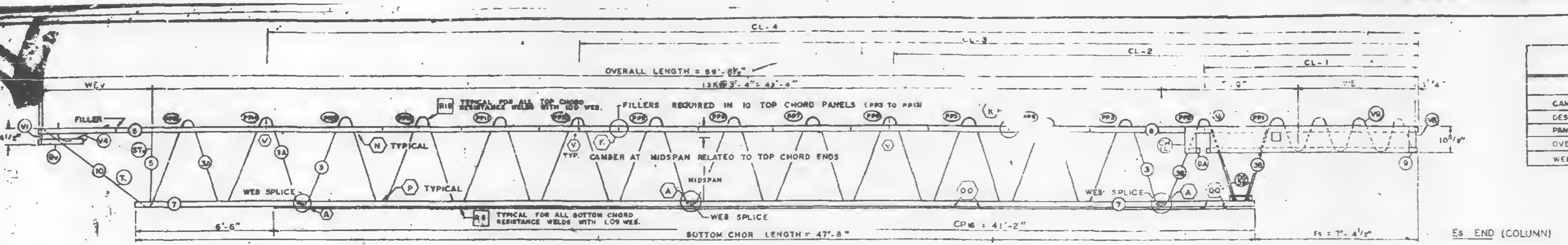
CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 2[illegible]'-10½" | 36'-2½" | 49'-[illegible]½" | 7'- |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T15CL x 59'-8" LONG (SEE NOTE #2)
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION FOR P.N.Y.A. DATE 4/10/69
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DETAILED BY A. CARL WEBER
DESIGN DRAWING NO. 7-AB1-14
DRAWN BY [illegible] DATE MAR 28, 1969
CHECKED BY T.M.CHURA DATE MAR 28, 1969
FABRICATION CONT. NO. W.T.C. 221
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO. ST 215CL

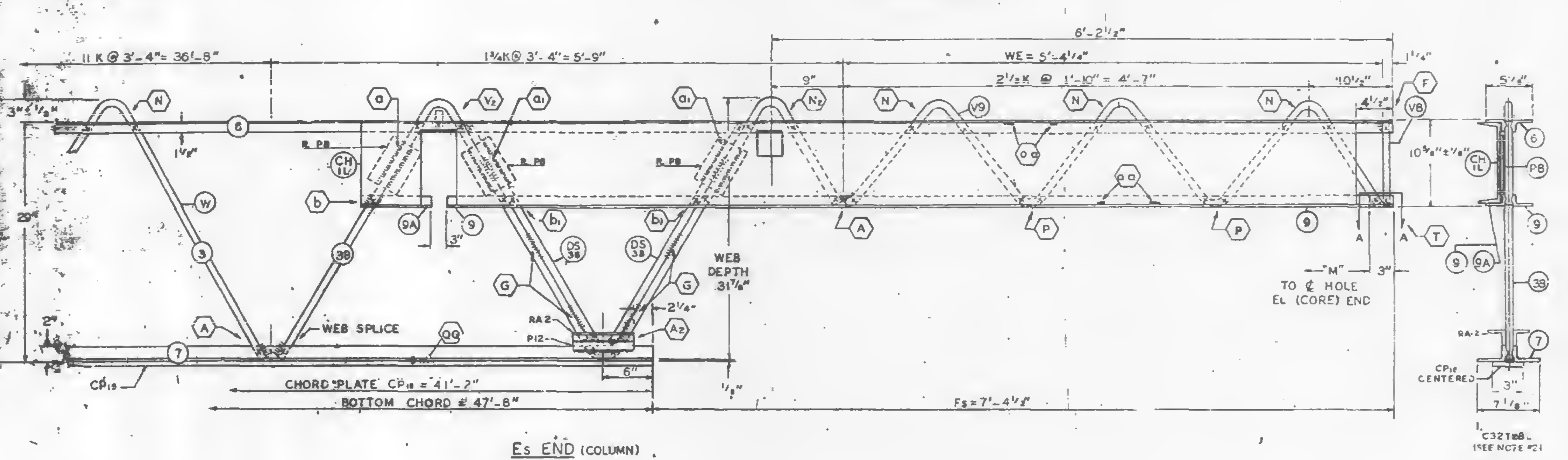


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8½"
13K @ 3'-4" = 43'-4"
WEv
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
P TYPICAL
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
WEB SPLICE
6'-6"
CP16 = 41'-2"
BOTTOM CHORD LENGTH = 47'-8"
Fs = 7'-4½"
Es END (COLUMN)
EL END (CORE)

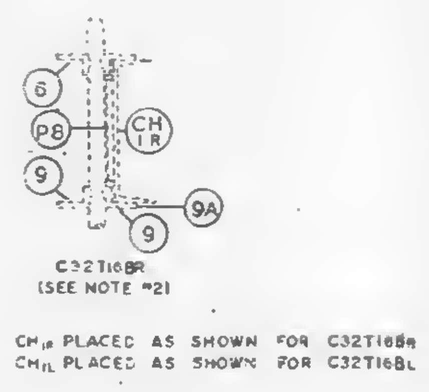
TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL. i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., [R9].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.



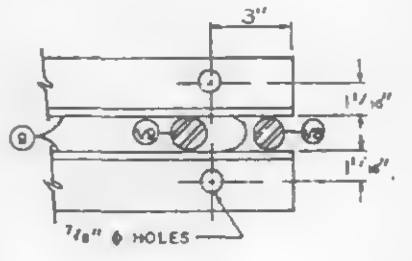
Es END (COLUMN)



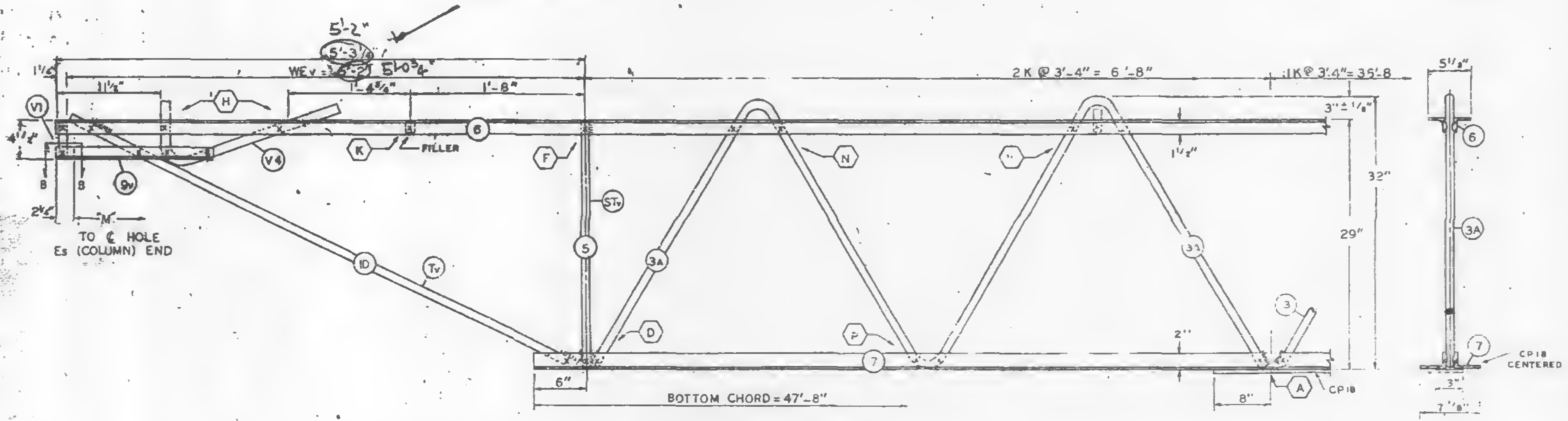
CHR PLACED AS SHOWN FOR C32T16BR
CHL PLACED AS SHOWN FOR C32T16BL

NOTE 2

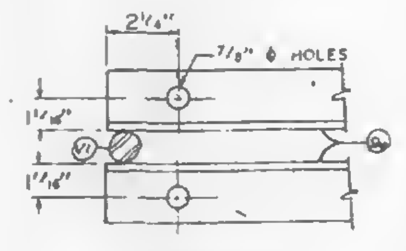
ALL DETAILS & ELEVATIONS SHOWN FOR C32T16BL TRUSSES ARE APPLICABLE TO C32T16BR TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.



SECTION A-A



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF. DRWG.

| | |
|---|---|
| 7-AB1-15 | 10-4-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 | 10-4-68 |
| SA-124 | 1-6-69 |
| 7-AB1-55 | 10-15-68 |
| 7-AB4-172 | 12-20-68 |

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
Date 4/25/69 By SK

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T16BL-598.5 | 6 | A242 | 2"x1½"x.31 | 59'-8½" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 58'-8 1/4"<br>12'-6 1/2"<br>10'-7 3/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-3¼" | CP 16 | A36 | 3"x25 | 41'-2" | 4 | 1.09 | 3" | PB | A36 | 3 | 4½"x39 | 5½ | A2 | A36 | 3"x2"x.33" | 7½" | P12 | A36 | 1"x3"6" | 7½" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | 32T16BL-598.5 | 9<br>9A | A242<br>A242 | 2"x1½"x.25<br>[illegible] | 2<br>1 | 1'-6"<br>[illegible] | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CHR<br>CHL | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T16BL-598.5 | 9V | A242 | 2"x1½"x.25 | 1'-6" | [illegible] | 10 | A242 | 1.14 | 5'-6⅛" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | — | — | — | A242 | 1.14 | 2'-2½" | - | — | — | — | - | — | — | — |

COLUMN END

CORE END

CHECK DIMENSION FOR TRUSS FAB.

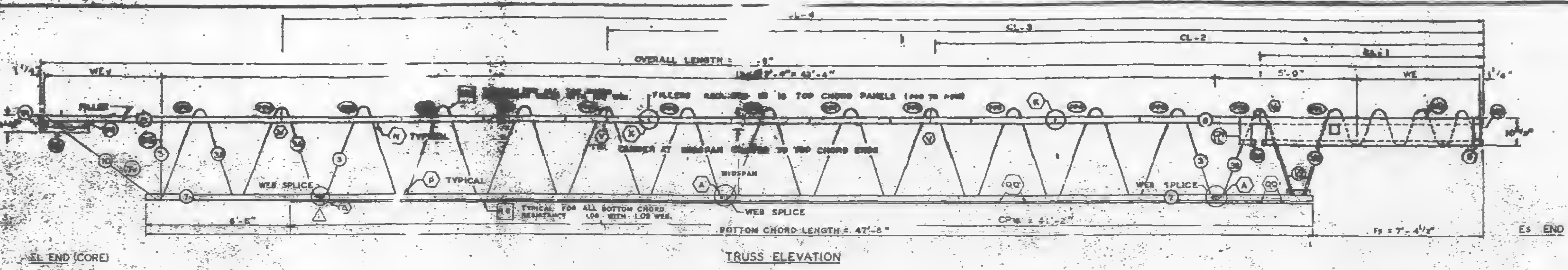
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | [illegible] |
| 9'-6½" | 2'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16BL (SEE NOTE 2) x 59'-8½" LONG
WORLD TRADE CENTER TOWERS A & B

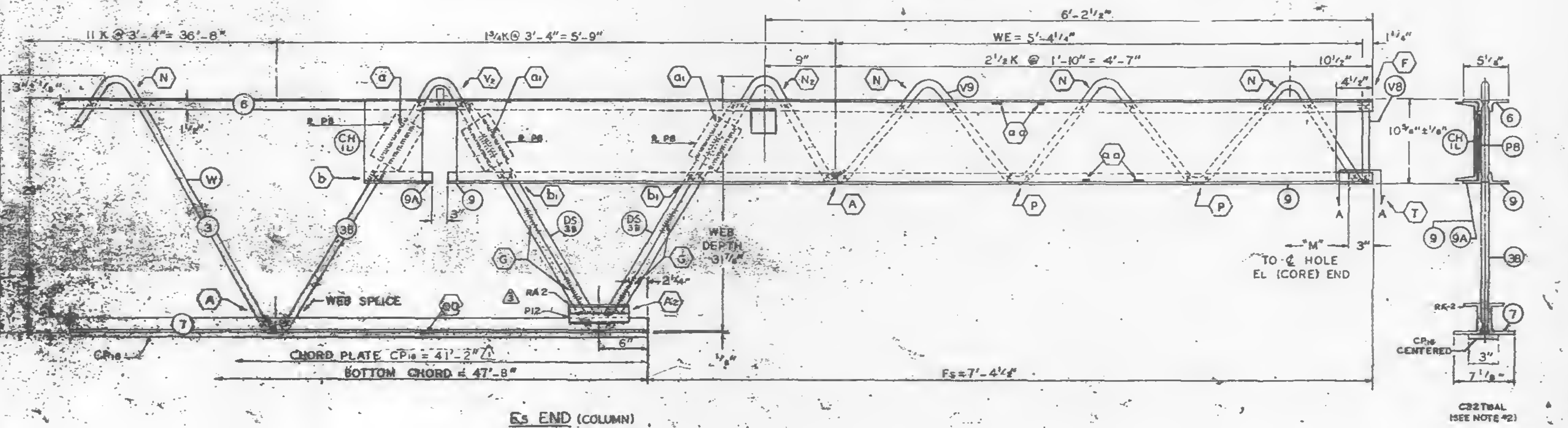
FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-15 | PLATE |
| APPROVED FOR FABRICATION BY FOR PONYA | DATE | DRAWN BY [illegible] DATE APRIL 11, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA DATE APRIL 11, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY LACLEDE STEEL CO | | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST 216BL |

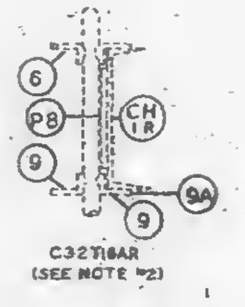


TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] 1/16" | ± 3/[illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL K | 3'-4" | [illegible] |
| OVERALL LENGTH | 59'-9" | ± 3/[illegible] |
| WEB DEPTH | 31 7/8" | 1/32" |



Es END (COLUMN)

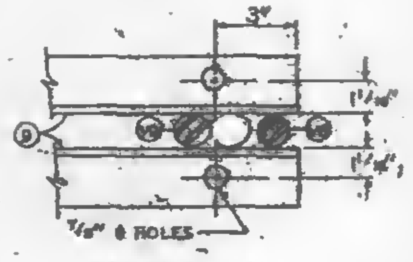


CHR PLACED AS SHOWN FOR C32T16AR
CHL PLACED AS SHOWN FOR C32T16AL

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e. ⬡A.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., ▢.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293. △3
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

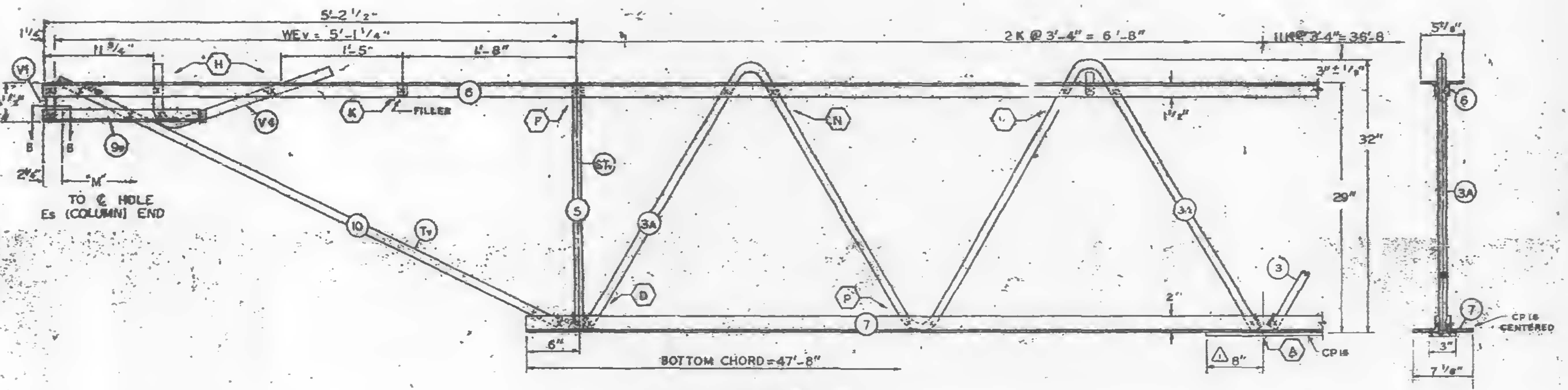
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T16AL TRUSSES ARE APPLICABLE TO C32T16AR TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

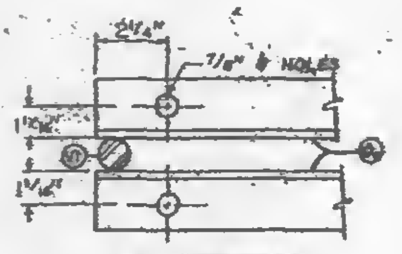


SECTION A-A

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 12-10-68 | AS NOTED | G.D.C. |
| △2 | 11-7-68 | AS NOTED | G.D.C. |
| △1 | 10-31-68 | CP16 | L.W.H. |



EL END (CORE)



SECTION B-B

△3 REF. DRWG.

| | |
|---|---|
| 7-ABI-15 | 10-[illegible] |
| 7-ABI-56 | [illegible] |
| 7-[illegible] | 7-[illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| 7-[illegible] | 10-[illegible] |
| 6A-124 | 10-[illegible] |
| 7-ABI-56 | 10-[illegible] |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

△3

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE △1 | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | 2 REQ'D LENGTH | MK. | TYPE STEEL | SIZE | 2 REQ'D LENGTH |
| C32T16AL-599 | 6 | A242 | 2"x1 1/2"x.31 | 59'-9" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 59'-6 1/4"<br>12'-5 1/2"<br>17'-7 5/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-3 3/4" | CP 16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 3 | 4 1/2"x.39 | 5 1/2" | RA2 | A36 | 3"x2"x.33" | 7 1/2" | P12 | A36 | 1"x3/8" | 7 1/2" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T16AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CHL<br>CHR | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-2" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T16AL-599 | 9B | A242 | 2"x1 1/2"x.25 | 1'-7" | 5'-1 1/4" | 10 | A242 | 1.14 | 5'-8 1/2" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 5/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | - | — | — | — | — | — | — | — |

△2

CHECK DIMENSION FOR TRUSS FAB.

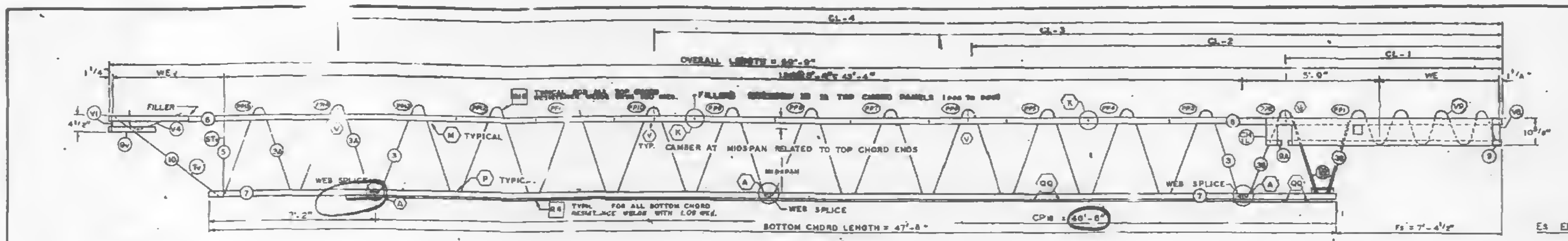
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16AL (SEE NOTE 2) x 59'-9" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-ABI-15 | PLATE |
| APPROVED FOR FABRICATION BY: James [illegible] FOR P.O.N.Y.A. | DATE 12/16/68 | DRAWN BY: gdc<br>DATE OCT. 9, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: [illegible]<br>DATE OCT. 9, 1968 | IN CHARGE OF PROD. [illegible] |
| LACLEDE STEEL CO.<br>DETAILED BY: [illegible] | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST [illegible] |

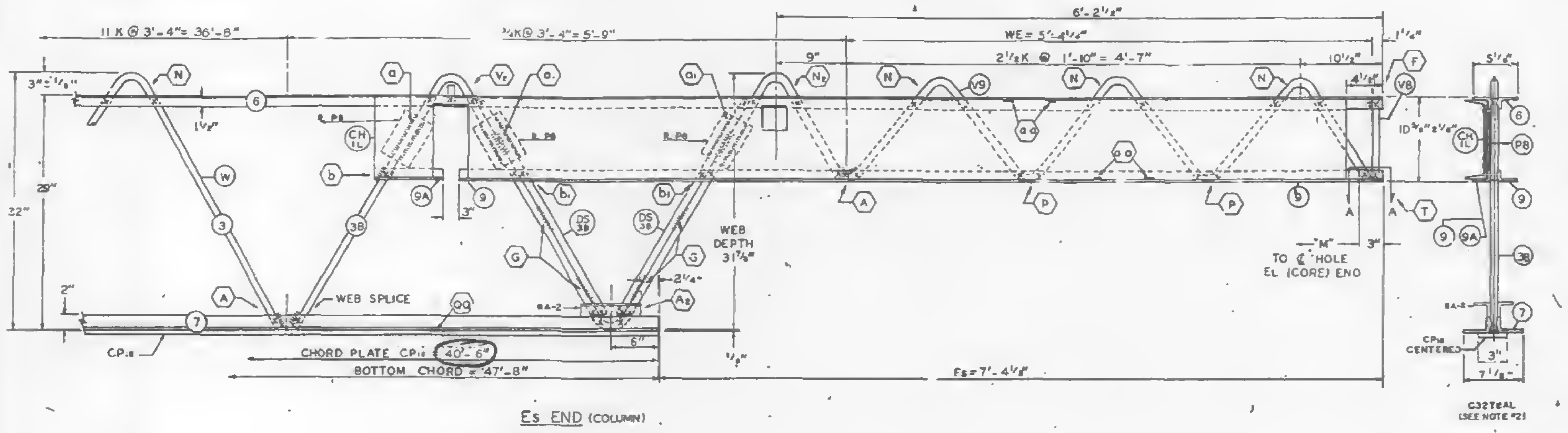


EL END (CORE)

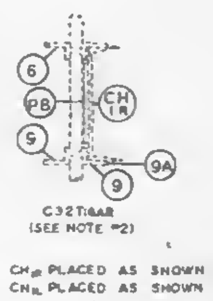
TRUSS ELEVATION

Es END (COLUMN)

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



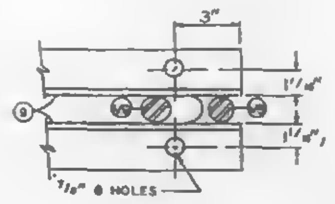
CH R PLACED AS SHOWN FOR C32T16AR
CH L PLACED AS SHOWN FOR C32T16AL

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., [RD]
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291.

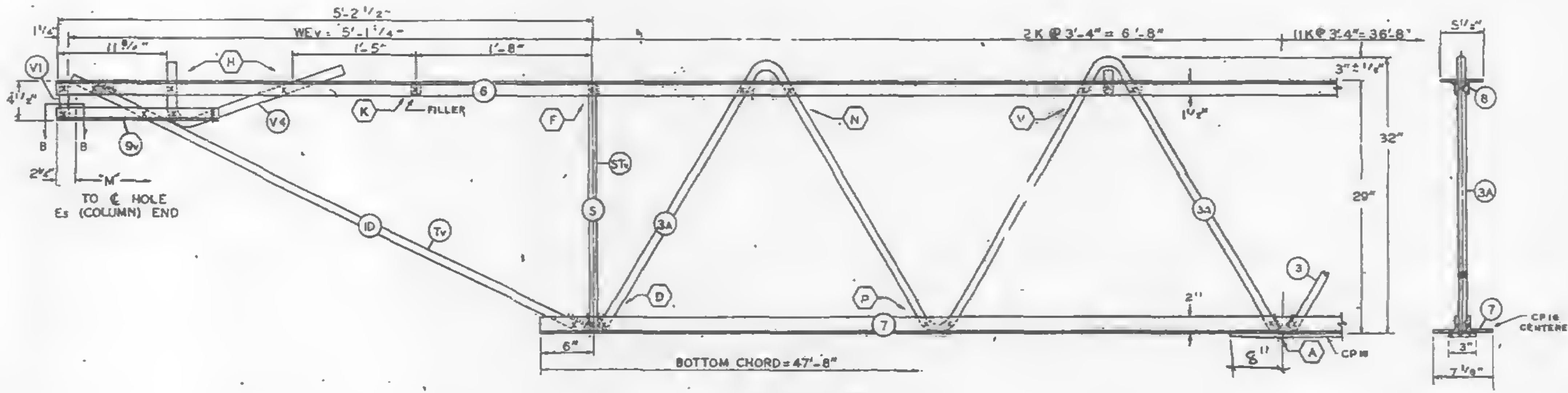
ALL CHANNEL DETAILS SHOWN ON SHEET ST402
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

NOTE 2

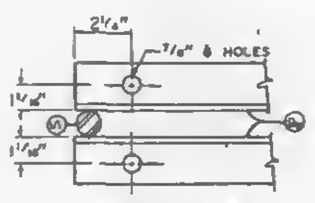
ALL DETAILS & ELEVATIONS SHOWN FOR C32T16AL
TRUSSES ARE APPLICABLE TO C32T16AR TRUSSES
WITH CHANNEL CH R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



SECTION A-A



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF. DRWG.

| | |
|---|---|
| 7-AB1-15 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53 A55 | 7-22-68 |
| 7-AB2-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| 9A-124 | 8-1-68 |

CHRISTIANSEN ON Structural Engineer
☐ APPROVED
☒ APPROVED AS NOTED
REVISE
By 10/29/68 SK

PAINT

LACLEDE ELECTROCOAT
RED NO. 10DD1

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T16AL-599 | 6 | A242 | 2"x1 1/2"x.31 | 59'-9" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>L14<br>L14 | [illegible]<br>[illegible]<br>10'-7 3/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-3 3/4" | CP 16 | A36 | 3"x.25 | 40'-6" | 4 | 1.09 | 3" | PB | A36 | 3 | 4 1/2"x.38 | 5 1/2" | RA-4 | A36 | 3"x2"x.33 | 7 1/2" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T16AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4 | DS | A242 | L14 | 2'-6 3/4" | — | — | — | — | A242 | L14 | 10 1/2" | A242 | L14 | 8'-3 7/8" | — | — | — | CH R<br>CH L | A36<br>A36 | 10C 30<br>10C 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

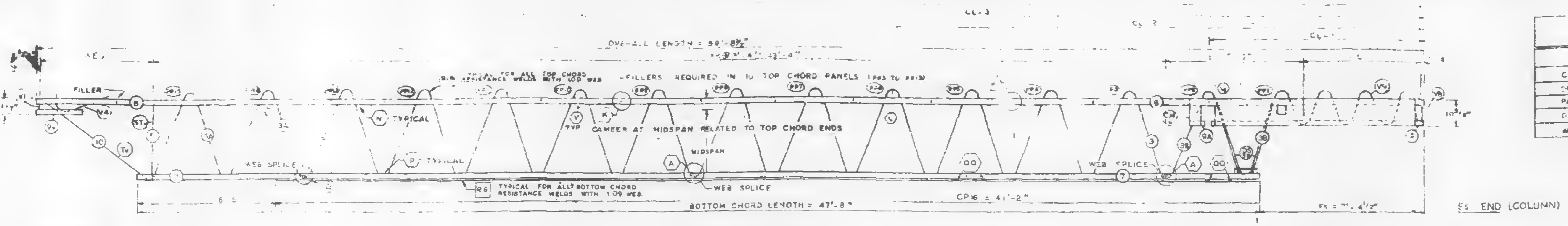
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T16AL-599 | 9v | A242 | 2"x1 1/2"x.25 | 1'-7" | 5'-1 1/4" | 10 | A242 | 1 1/4 | 5'-6 1/2" | 5 | A242 | L14 | 2'-4 3/4" | A242 | L14 | 4 3/8" | — | — | — | A242 | L14 | 2'-2 1/2" | — | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16AL (SEE NOTE 2) x 59'-9" LONG
WORLD TRADE CENTER TOWERS A & B

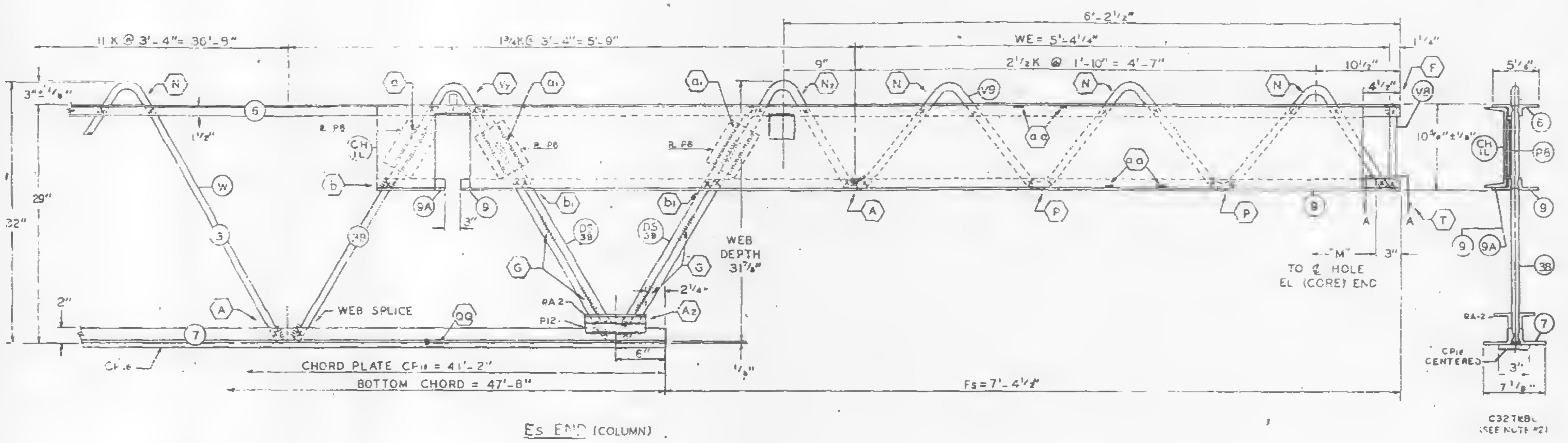
FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-15 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE | DRAWN BY: adc<br>DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE OCT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 216AL |

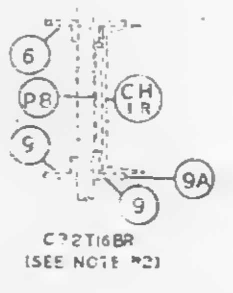

OVERALL LENGTH = 59'-8½"
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH LOD WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH LOS WEB
BOTTOM CHORD LENGTH = 47'-8"
CP16 = 41'-2"
Es END (COLUMN)

EL END (CORE)

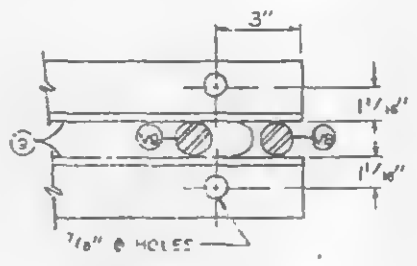
TRUSS ELEVATION



Es END (COLUMN)



CH1R PLACED AS SHOWN FOR C32T16BR
CH1L PLACED AS SHOWN FOR C32T16BL

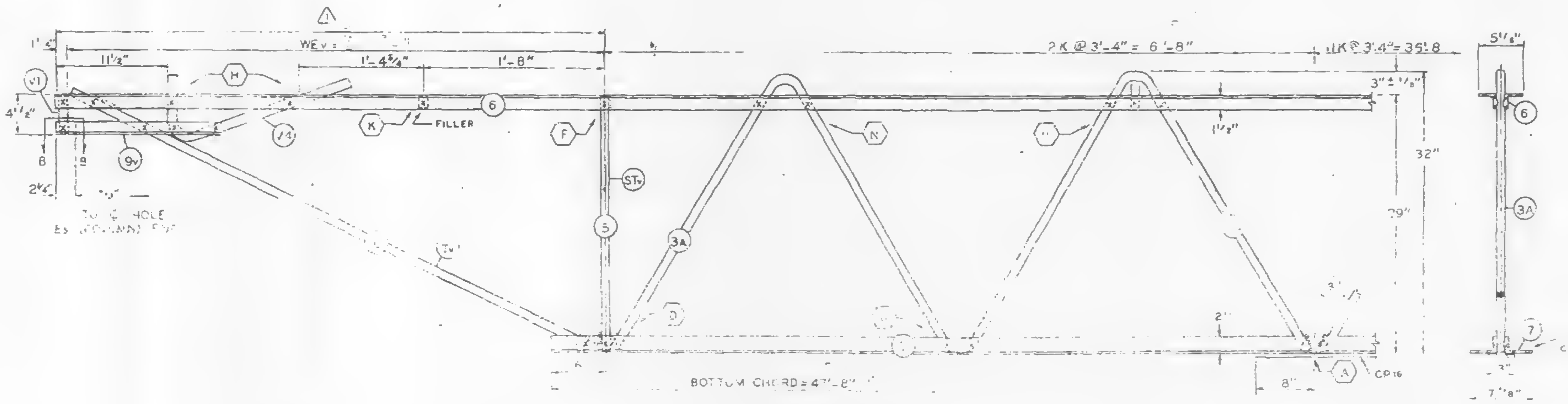


SECTION A-A

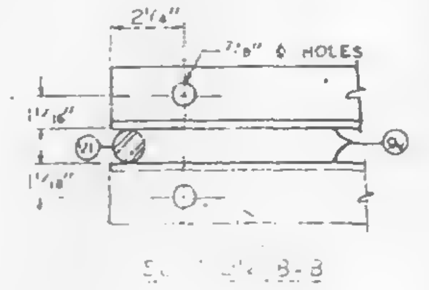
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R9.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 292 & ST 293
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T16BL
TRUSSES ARE APPLICABLE TO C32T16BR TRUSSES
WITH CHANNEL CH1R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 5-6-69 | AS NOTED | D.C.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-15 | 10-4-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB1-17 | 10-4-68 |
| SA-24 | 1-6-69 |
| 7-AB1-55 | 10-15-68 |
| 7-AB4-172 | 12-20-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 /16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| TRUSS DESIGNATION | | | | | BOTTOM CHORD TWO ANGLES TYPE STEEL | SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO. OF K | FILLER | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CONNECTION FILLERS | | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS | SIZE | LENGTH | REINFORCING ANGLES MK | TYPE STEEL | ANGLE SIZE | 2 REQ'D LENGTH | SPECIAL PLATES MK | TYPE STEEL | SIZE | 2 REQ'D LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T16BL 598.5 | [illegible] | [illegible] | [illegible] | 5-8½" | A36 | 3" x 2" x .33" | 47'-8" | [illegible]<br>[illegible]<br>[illegible] | A36<br>A242<br>A242 | L09<br>L14<br>L14 | 68'-8 1/4"<br>12'-5"<br>10'-7.5 8" | 11 K 3'-4" = 36'-8"<br>2 K 3'-4" = 6'-8"<br>1¾ K 3'-4" = 5'-9" | [illegible] | 3¼" CP16 | A36 | 5"x.25 | 41'-2" | 4 | 1C9 | 3" | PO | A36 | 3 | 4 2"x39 | 5" | AB | A36 | 3 x 2½ x .37" | 7'½" | P12 | A36 | [illegible] | 7' 2" |

| | | | | DOUBLE STRUT TYPE STEEL | LENGTH REQ'D | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK V8 TYPE STEEL | DIA | LENGTH | MK V5 TYPE STEEL | DIA | LENGTH | MK V10 TYPE STEEL | DIA | LENGTH | CHANNEL MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Es END | 598.5 | A242 | [illegible] | A242 | 4 12'-6¾" | — | — | — | — | A242 | 1.14 | [illegible] | A242 | 1.14 | [illegible] 5⅞" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

| EL END | | | | | | VERTICAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | TYPICAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA | LENGTH | MK V4 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T16B 598.5 | [illegible] | [illegible] | 1'-6" | 1 | | 10 | A242 | 1.14 | 5-6⅝" | [illegible] | A242 | 1.14 | 2'-4⅞" | A242 | [illegible] | 4'-8" | — | — | — | A242 | 1.14 | 2'-2" | — | — | — | — | — | — | — | — |

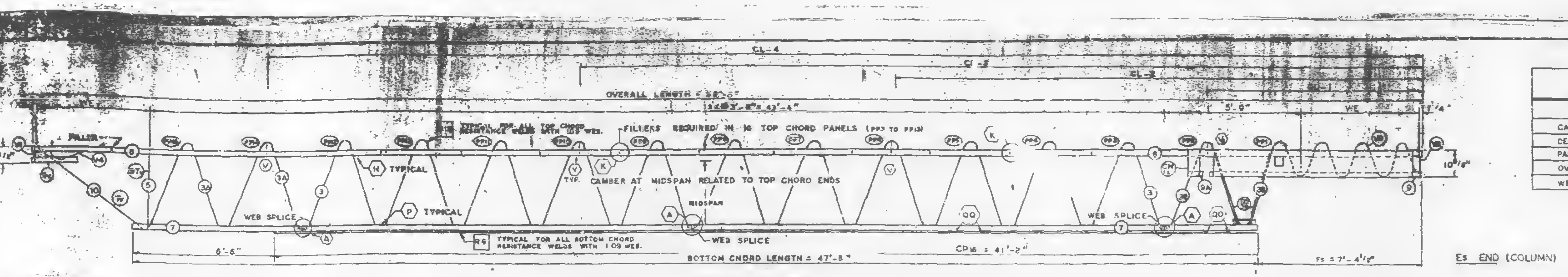
CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | |
|---|---|---|---|---|
| 9'-6½" | 2'-10½" | 36'-2½" | 4'-8½" | 4'½" |

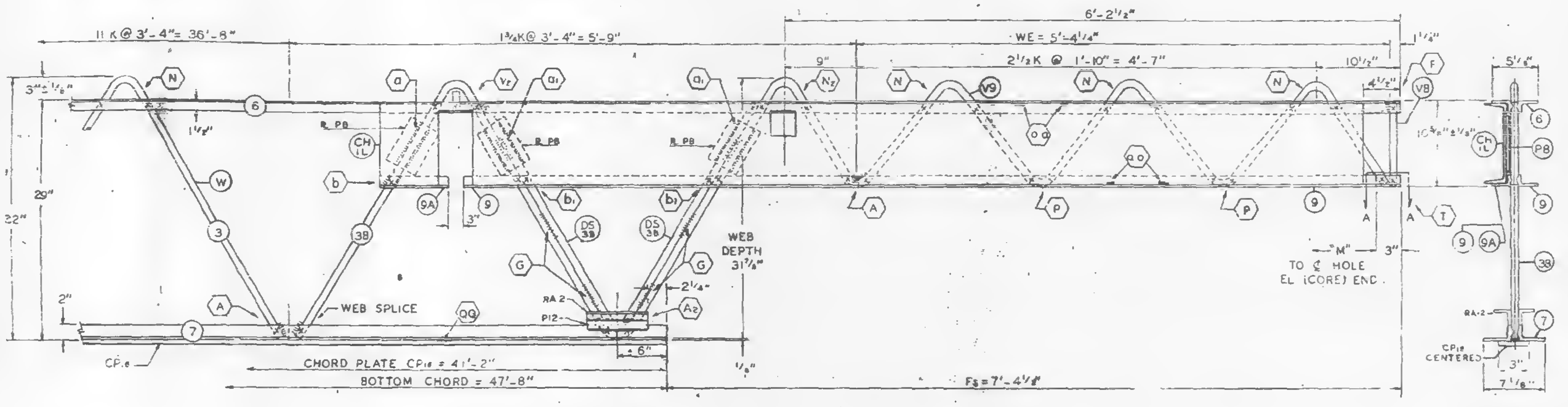
FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16BL (SEE NOTE #2) x 59'-8½" LONG
WORLD TRADE CENTER TOWERS A & B

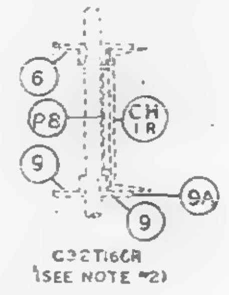
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON ILLINOIS
APPROVED FOR FABRICATION FOR OWNER 6/4/69
APPROVED FOR FABRICATION BY FOR FABRICATOR
DESIGN DRAWING NO. 7-AB1-5 [redacted]
DRAWN BY: DATE APRIL [redacted]
CHECKED BY DATE APRIL [redacted]
FABRICATION [redacted]
LACLEDE STEEL CO.


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-8"
13K @ 3'-4" = 43'-4"
5'-0"
WE
1 1/4"
FILLER
WE
4 1/2"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
FILLERS REQUIRED IN 16 TOP CHORD PANELS (PP3 TO PP18)
H TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
P TYPICAL
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
WEB SPLICE
CH 1L
10 3/8"
6'-6"
BOTTOM CHORD LENGTH = 47'-8"
CP16 = 41'-2"
Fs = 7'-4 1/2"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION



Es END (COLUMN)

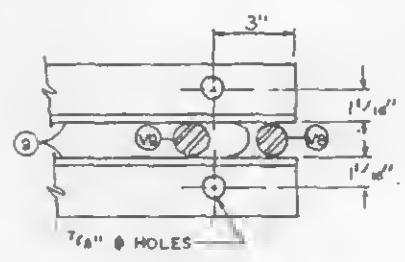


CH1R PLACED AS SHOWN FOR C32T16CR
CH1L PLACED AS SHOWN FOR C32T16CL

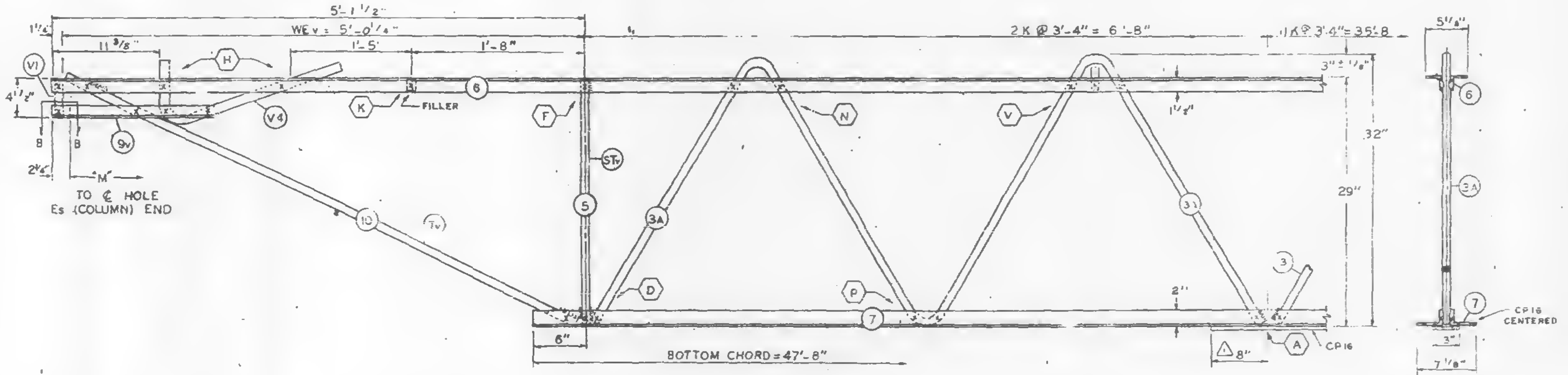
ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R6.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

NOTE 2

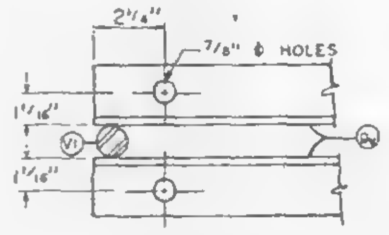
ALL DETAILS & ELEVATIONS SHOWN FOR C32T16CL
TRUSSES ARE APPLICABLE TO C32T16CR TRUSSES
WITH CHANNEL CH1R AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



SECTION A-A



EL END (CORE)



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± [illegible] |
| DESIGN DEPTH | 29" | ± 1/[illegible]" |
| PANEL K | 3'-4" | ± 1/[illegible]" |
| OVERALL LENGTH | 58'-8" | ± 3/16" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|

REF. DRWG.

| | |
|---|---|
| 7-AB1-15 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-15-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10D01

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | FILLER NO. | DIA. | "M" C/C HOLES | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CONNECTION FILLERS NO | DIA | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | REINFORCING ANGLES MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | SPECIAL PLATES MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T16CL-598 | 6 | A242 | [illegible]1/2" x .31 | 59'-8" | 7 | A36 | 3" x 2" x .33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 58'-8 1/4"<br>12'-6 1/2"<br>10'-7 5/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-2 3/4" | [illegible] | A36 | 3"x 25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 3 | 4 1/2"x39 | 5 1/2" | RA-2 | A36 | 3"x 2"x.33" | 7 1/2" | P12 | A36 | 1"x 3/8" | 7 1/2" |

COLUMN END

| Es TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T16CL-598 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.2[illegible] | 2<br>1 | 9'-5"<br>5 1/2" | 5'-4 1/4" | DS 3B | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10C 30<br>10C 30 | 10'-0"<br>10'-0" |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "Tv" STRUT MK | TYPE STEEL | DIA. | LENGTH | VERTICAL "STv" STRUT MK | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA. | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T16CL-598 | 9v | A242 | 2"x1 1/2"x .25 | 1'-6" | 5'-0 1/4" | 10 | A242 | 1.14 | [illegible]-5 1/2" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 5/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | - | — | — | — | | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

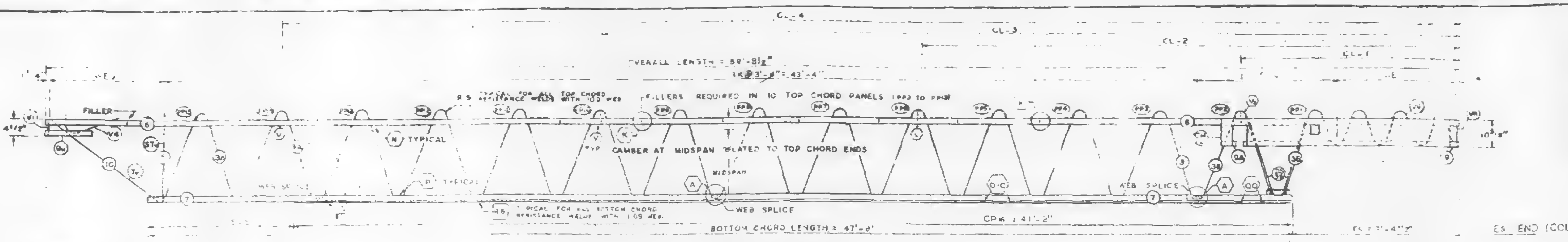
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | F |
| 9'-6 1/2" | 22'-10 1/2" | 35'-2 1/2" | 49'-6 1/2" | [illegible] 2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T16CL (SEE NOTE 2) x 59'-8" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-15 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A | DATE 4/7/69 | DRAWN BY: GAC<br>DATE MAR. 28, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY. T.M. OSIRA<br>DATE MAR. 28, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 216 [illegible] |

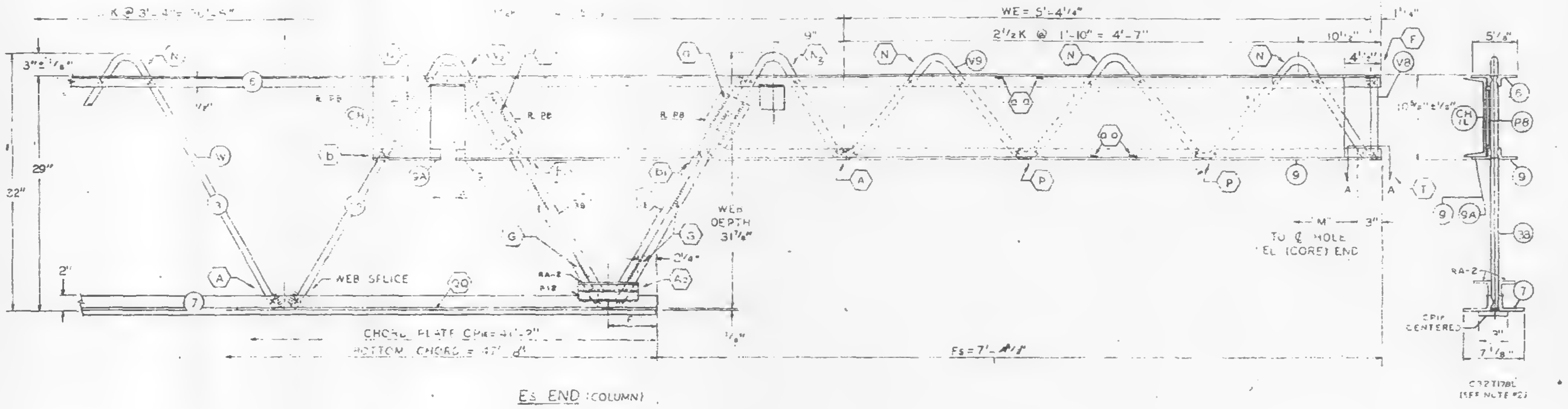

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8½"
11K @ 3'-4" = 43'-4"
FILLER
FILLERS REQUIRED IN 10 TOP CHORD PANELS
N TYPICAL
CAMBER AT MIDSPAN PLATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
BOTTOM CHORD LENGTH = 47'-8"
CP18 : 41'-2"
10⅞"

TRUSS ELEVATION

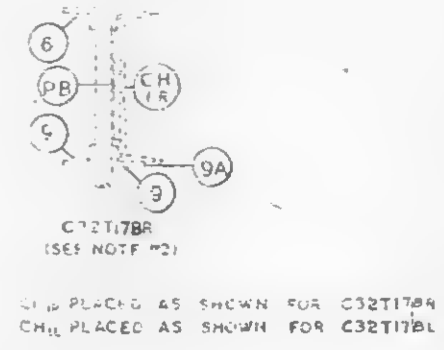
EL END (CORE)

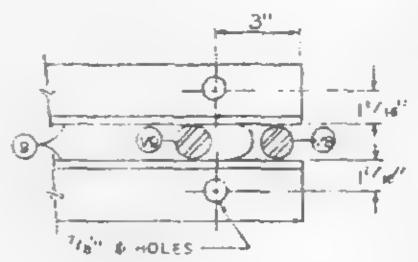
ES END (COLUMN)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59' 8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



ES END (COLUMN)


C32T17BR (SEE NOTE #2)
CHIP PLACED AS SHOWN FOR C32T17BR
CHIP PLACED AS SHOWN FOR C32T17BL

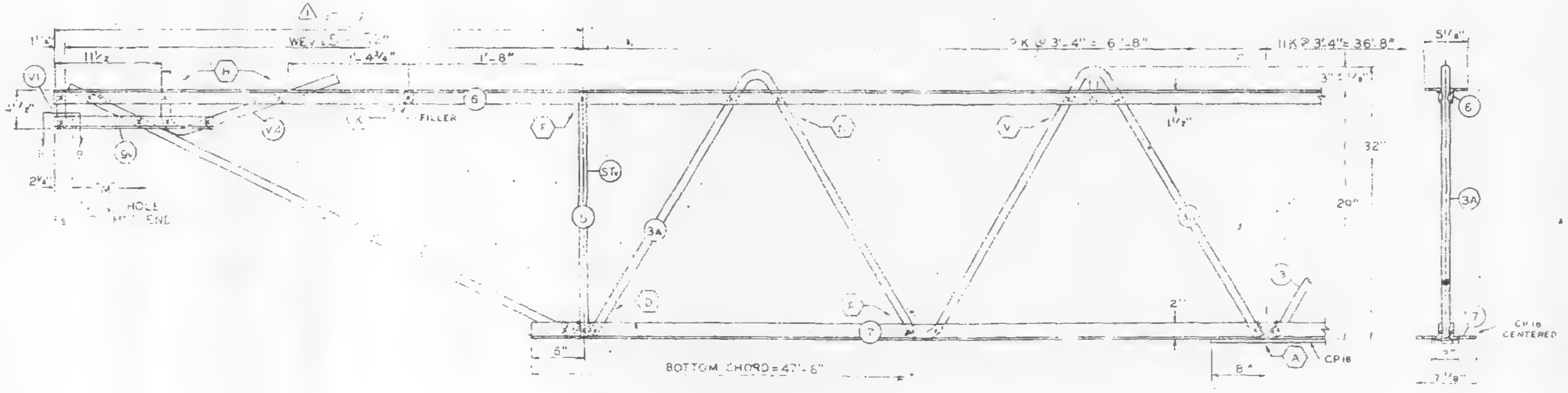


SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED. (✱).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R9.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.

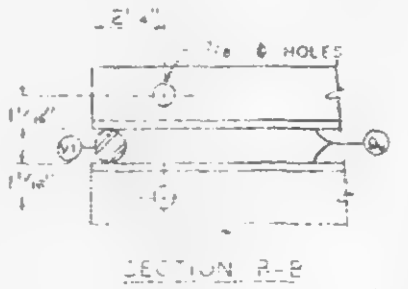
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17BL
TRUSSES ARE APPLICABLE TO C32T17BR TRUSSES
WITH CHANNEL CHIP AND BEARING ANGLE 9A
PLACED ON OPP HAND AS SHOWN.



BOTTOM CHORD = 47'-8"

EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 5-6-69 | AS NOTED | D.C.C |

| REF DRWG. | |
|---|---|
| 7-AB1-18 | 10-4-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-1 | 10-4-68 |
| SA-124 | 1-6-69 |
| 7-AB1-55 | 10-15-68 |
| 7-AB4-17.2 | 12-20-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | [illegible] | [illegible] | [illegible] | BOTTOM CHORD TWO ANGLES TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB MK | TYPE STEEL | DIA | LENGTH | NO. OF K | FILLER NO. | DIA. | "M" C/C HOLES | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CONNECTION FILLERS NO | DIA | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | REINFORCING ANGLES MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | SPECIAL PLATES MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T17BL 598.5 | A242 | [illegible] | 59'-8½" | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>15 | A36<br>A242<br>A242 | .29<br>.4<br>.19 | 68'-6¼"<br>12'-5½"<br>12'-7.5 6" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>3.4K @ 3'-4" = 5'-9" | 1 | 1.09" | 9'-3¼" | CP18 | A36 | 3"x25 | 4'-2" | 4 | 1.09 | 3" | CC | A36 | 3 | 4½"x39 | 5'-2" | RA2 | A36 | 3½"x2"x.33" | 7'-2" | P12 | A36 | 1"x⅜" | 7'-2" |

**COLUMN END**

| END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | CHIP PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA | LENGTH | MK. V9 TYPE STEEL | DIA | LENGTH | MK. V10 TYPE STEEL | DIA | LENGTH | CHANNEL MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T17BL 598.5 | 9<br>9A | A242<br>A242 | [illegible] | [illegible] | 4¼" | DS | A242 | 114 | 2'-6¾" | - | - | - | - | A242 | 114 | 10½" | A242 | 114 | 8'-3⅞" | — | — | — | CH<br>CH | A36<br>A36 | 10 30<br>10S 30 | 10'-0"<br>10'-0" |

**CORE END**

| END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | [illegible] | WE | DIAGONAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL ST. STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T17BL 598.5 | 9A | A242 | [illegible] | 6" | | ST | A242 | 114 | 5'-6⅛" | ST | A242 | 114 | 2'-4⅛" | A242 | 114 | 4'-6" | -- | — | — | A242 | 114 | 2'-2½" | - | — | — | — | | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

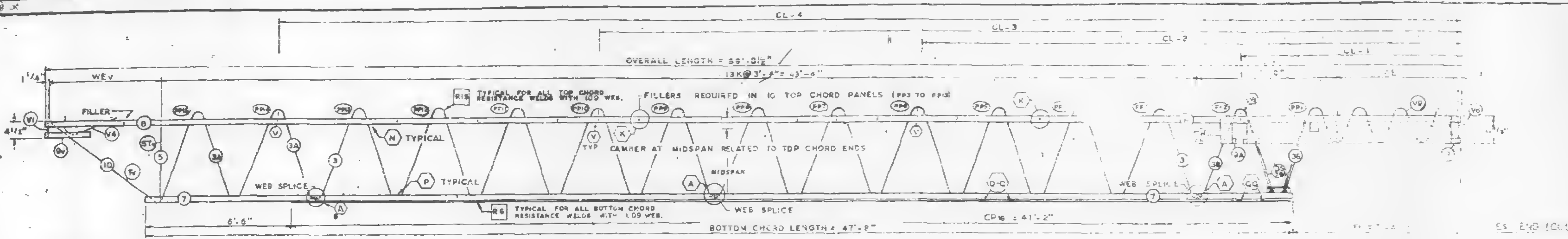
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | FS |
| 9'-6' | 22'-10½" | 36'-2½" | 49'-6½" | 4'½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

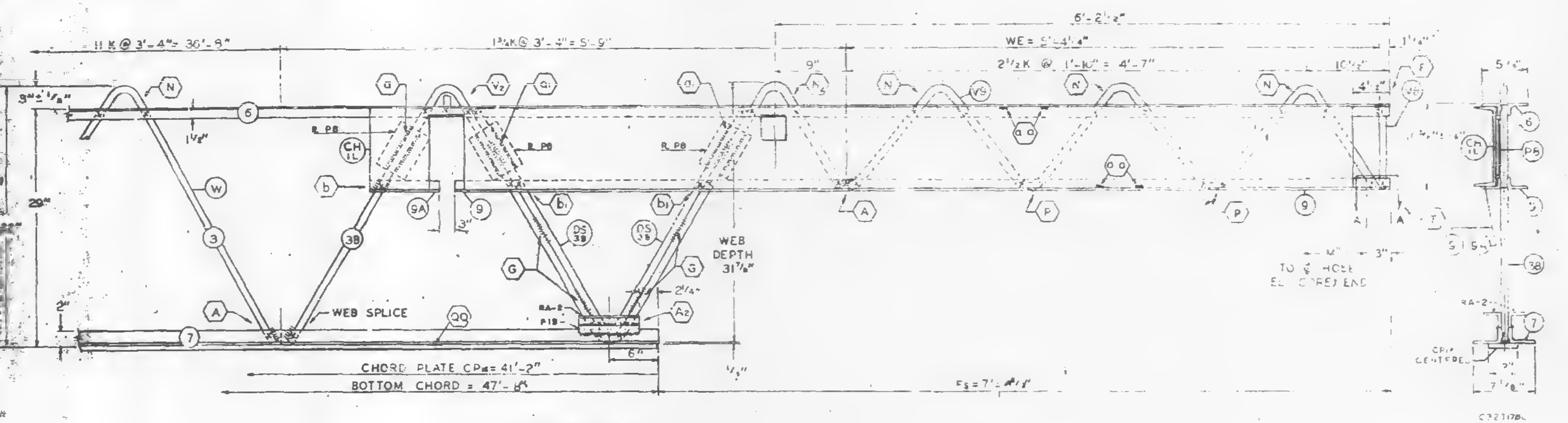
FLOOR TRUSS C32T17BL (SEE NOTE 2) x 59'-8½"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION James White FOR PONYA DATE 6/4/69
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DETAILED BY: A. CARL WEBER
DESIGN DRAWING NO. 7-AB1-16
DRAWN BY: ajc
DATE APRIL 11, 1969
CHECKED BY: T.M.CHU
DATE APRIL 11, 1969
FABRICATION CONT NO. WTC 221

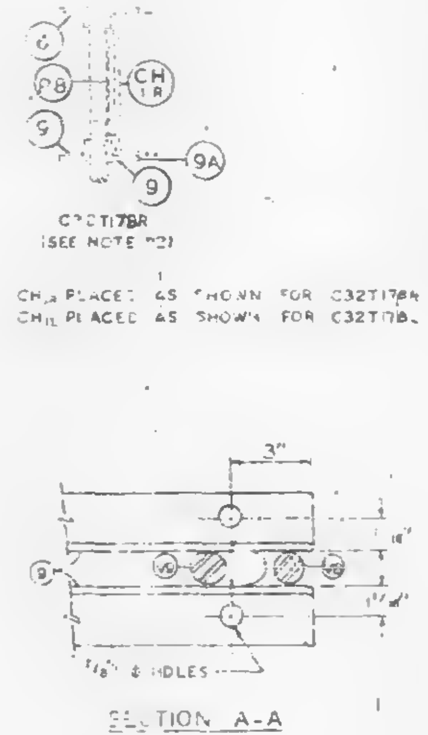
[redacted]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8½"
13K@3'-4" = 43'-4"
WEv
1¼"
4½"
FILLER
R15 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
P TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
6'-6"
BOTTOM CHORD LENGTH = 47'-8"
CP16 = 41'-2"
Es END (COLUMN)
EL END (CORE)

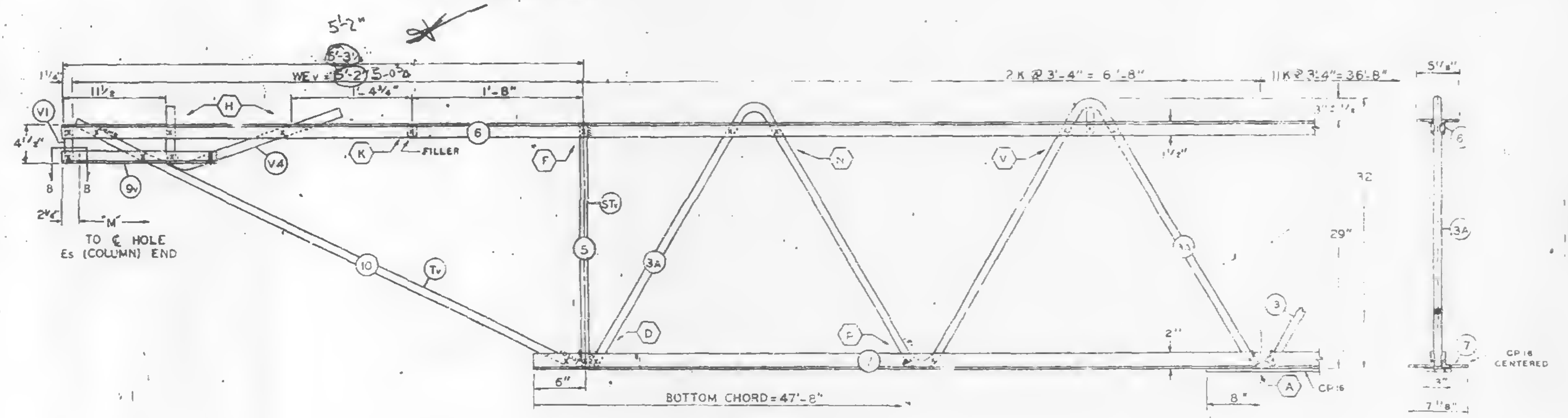
TRUSS ELEVATION



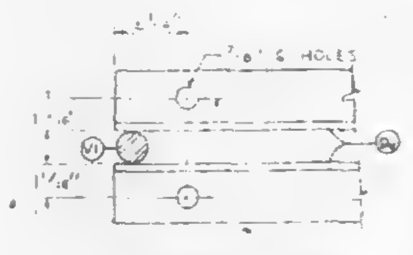
Es END (COLUMN)



SECTION A-A



EL END (CORE)



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL P | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8½" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (initial).
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie.. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie.. R9.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17BL TRUSSES ARE APPLICABLE TO C32T17BR TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

| NO | DATE | REVISION | BY |
|---|---|---|---|

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☒ APPROVED AS NOTED
☐ RESUBMIT
☐ REJECTED
Date 4/25/69 by SK

| REF. DRWG. | | |
|---|---|---|
| | 7-AB1-18 | 10-4-68 |
| | 7-AB1-54 | 1-6-69 |
| | 7-AB1-53 | 7-22-68 |
| | 7-AB3-2 | 1-3-68 |
| | 7-AB3-24 | 8-15-68 |
| | 7-AB4-17 | 10-4-68 |
| | SA-124 | 1-6-69 |
| | 7-AB1-55 | 10-15-68 |
| | 7-AB4-17.2 | 12-20-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH (2 REQ'D) |
| C32T17BL-598.5 | 6 | A242 | 2"x1½"x.31 | 59'-8½" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 58'-6 1/4"<br>12'-5 1/2"<br>10'-7 5/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>3 4K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-8¼" | CP16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 1 | 4"x2"x.39 | 5' | RA2 | A36 | 3"x2"x.33" | 7'-2" | P12 | A36 | 1"x⅜" | 7'-2" |

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T17BL-598.5 | 9<br>9A | A242<br>A242 | [illegible]<br>[illegible] | 2<br>1 | [illegible]<br>[illegible] | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | - | - | - | - | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | [illegible]<br>[illegible] | A36<br>A36 | 10-30<br>10C 30 | 10'-0"<br>10'-0" |

COLUMN END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T17BL-598.5 | 9v | A242 | 2"x1½"x.25 | 1'-6" | 5'-2" | 10 | A242 | 1.14 | 5'-6⅛" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-5½" | - | — | — | — | — | | — | — |

CORE END

CHECK DIMENSION FOR TRUSS FAB.

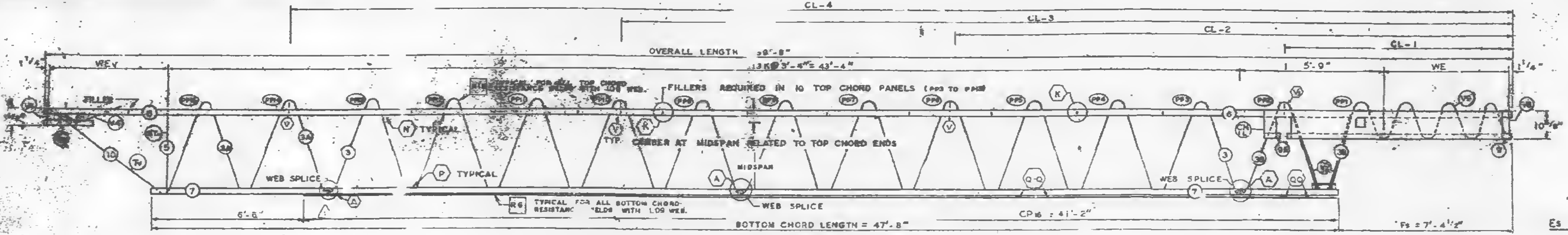
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

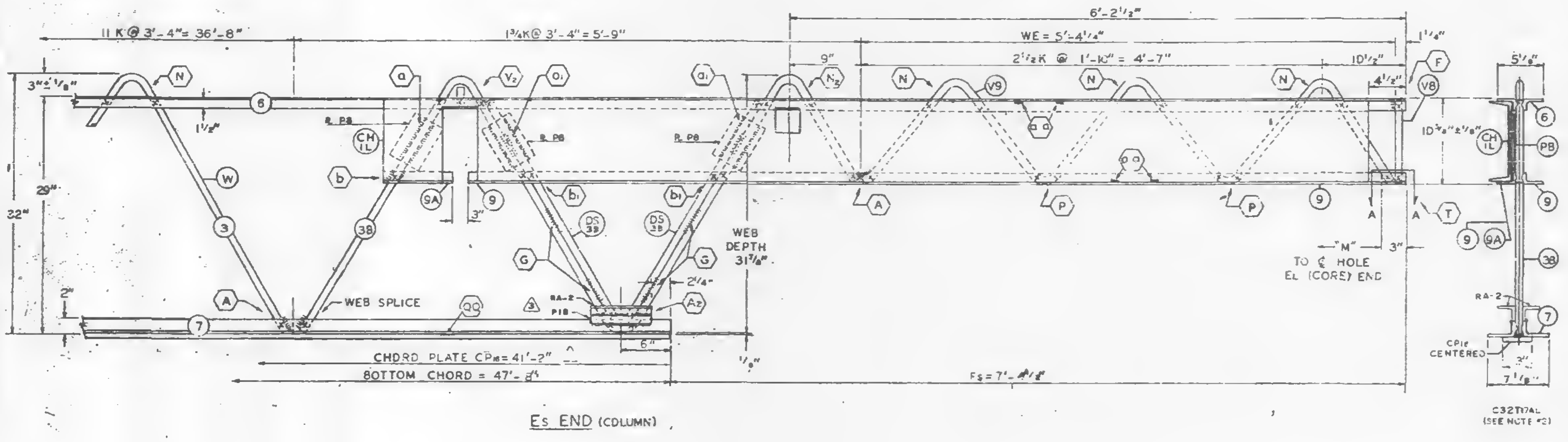
FLOOR TRUSS C32T17BL (SEE NOTE 2) x 59'-8½"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

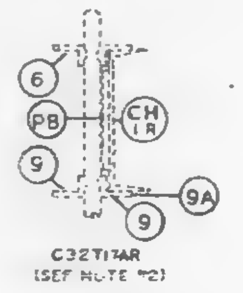
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A DATE | DRAWN BY gdc DATE APRIL 11, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY: T.M. CHURA DATE APRIL 11, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO. DETAILED BY: | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 217BL |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
13K @ 3'-4" = 43'-4"
5'-9"
WEv
WE
FILLERS REQUIRED IN 10 TOP CHORD PANELS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
TYPICAL
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH LOS WEB.
6'-8"
BOTTOM CHORD LENGTH = 47'-8"
CP16 : 41'-2"
Fs = 7'-4½"
10⅝"
EL END (CORE)
Es END (COLUMN)

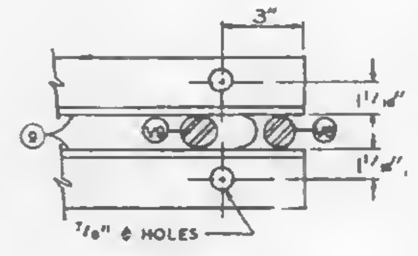
TRUSS ELEVATION



Es END (COLUMN)



CH1R PLACED AS SHOWN FOR C32T17AR
CH1L PLACED AS SHOWN FOR C32T17AL



SECTION A-A

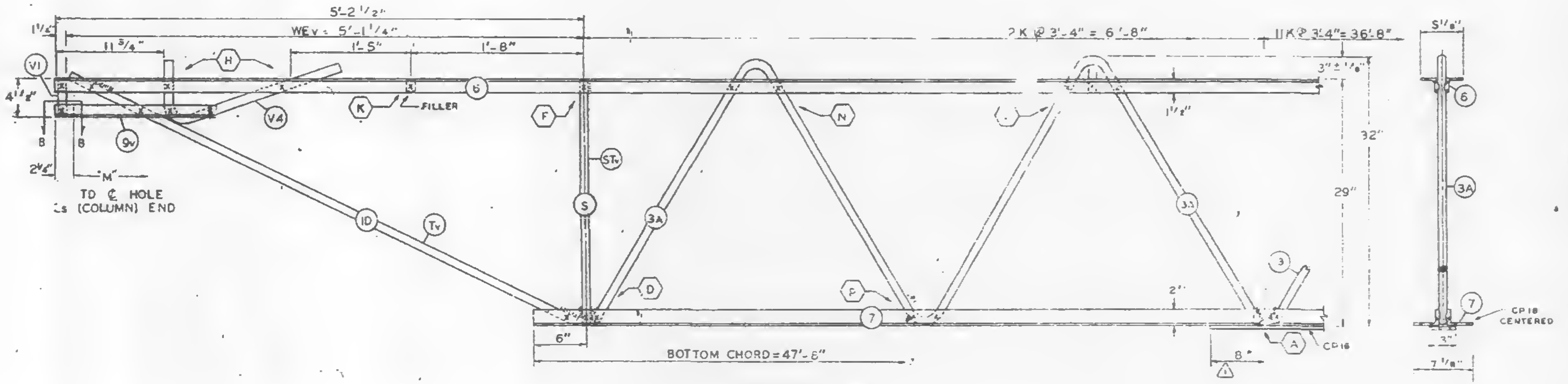
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R6.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
3 ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.

NOTE 2

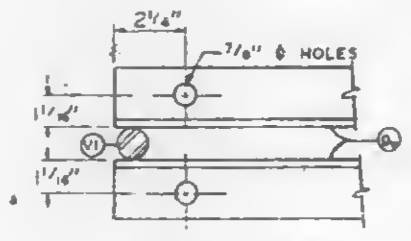
ALL DETAILS & ELEVATIONS SHOWN FOR C32T17AL TRUSSES ARE APPLICABLE TO C32T17AR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

FABRICATION REQUIREMENTS

| | |
|---|---|
| CAMBER AT MIDSPAN | 2" |
| DESIGN DEPTH | [illegible] |
| PANEL | [illegible] |
| OVERALL LENGTH | [illegible] |
| WEB DEPTH | [illegible] |



EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 12-10-68 | AS NOTED | G.D.C. |
| 2 | 11-7-68 | AS NOTED | G.D.C. |
| 1 | 10-31-68 | CP16 - | LWH |

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-16 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB2-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-18-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE 1 | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES 3 | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T17AL-599 | 6 | A242 | 2"x1½"x.31 | 59'-9" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 68'-6¼"<br>12'-5½"<br>17'-1⅝" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1¾ K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-3¾" | CP16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | PB | A36 | 3 | 4½"x.39 | 5'-½" | RA2 | A36 | 3"x2"x.33" | 7½" | P12 | A36 | 1"x⅜" | 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T17AL-599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 9'-5"<br>6½" | 5'-4¼" | DS | A242 | 1.14 | 2'-6¾" | — | — | - - | - - - | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10⊏30<br>10⊏30 | 10'-0"<br>10'-0" |

CORE END

| EL. END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | D S ER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T17AL-599 | 9v | A242 | 2"x1½"x.25 | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | - | — | — | — | — | — | — | — |

2

CHECK DIMENSION FOR TRUSS FAB.

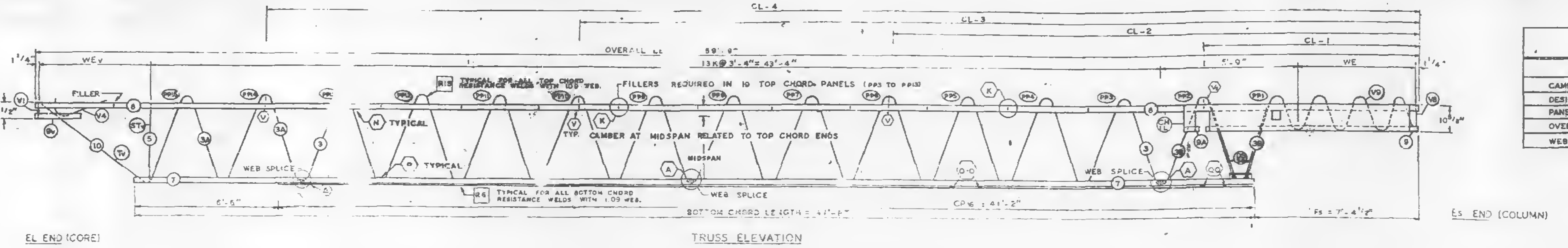
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T17AL (SEE NOTE 2) x 59'-9"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. | DATE 12/6/68 | DRAWN BY: gdc<br>DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE OCT. 8, 1968 | IN CHARGE OF PROD. DEPT. |
| LACLEDE STEEL CO. DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET ST 217 |

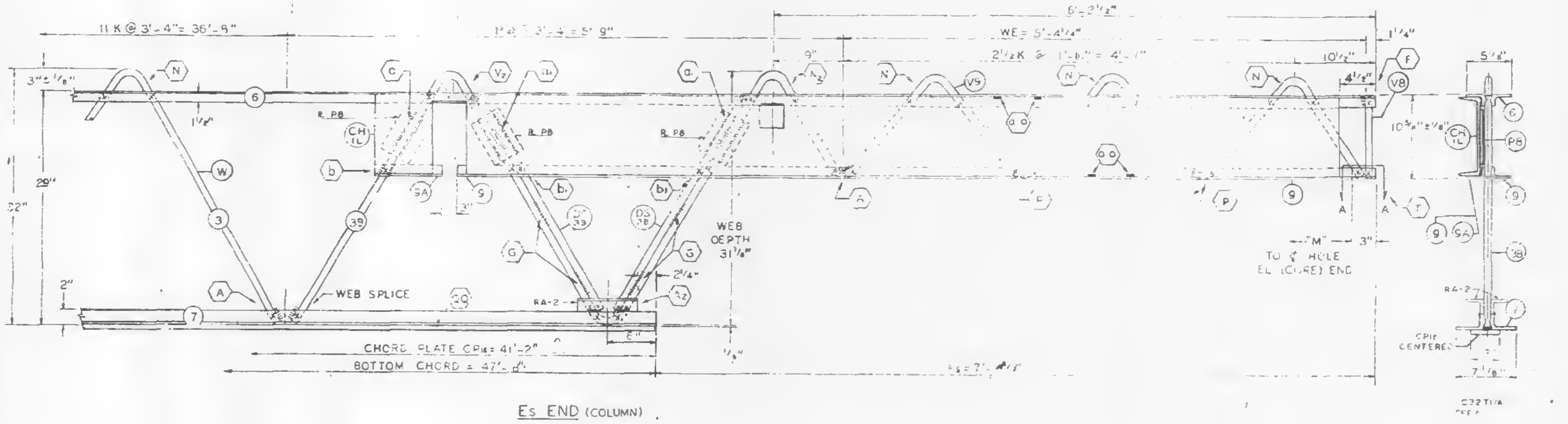

CL-4
CL-3
CL-2
CL-1
OVERALL LL 59'-9"
13 K @ 3'-4" = 43'-4"
1 3/4"
WEv
WE
5'-9"
4 1/2"
10 1/8"
FILLER
R15 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
6'-6"
BOTTOM CHORD LENGTH = 47'-8"
CP16 = 41'-2"
Fs = 7'-4 1/2"
V1
V4
9v
10
Tv
STv
5
3A
3
6
7
V
K
A
9
V8
V9
9A
3B

EL END (CORE)

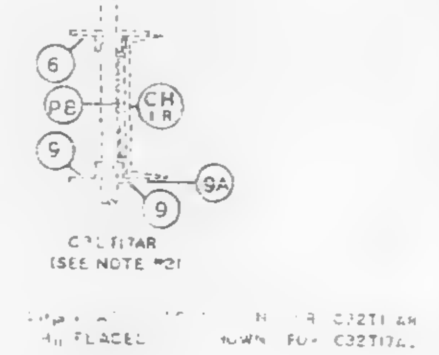
TRUSS ELEVATION

Es END (COLUMN)

| FABRICATION REQUIREMEN | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | - 1/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



C32T17AR
(SEE NOTE #2)

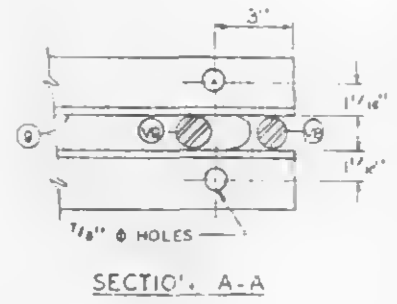
N R C32T17AR
AS PLACED SHOWN FOR C32T17AL.

ALL PANEL POINTS RESISTANCE WELDED. (A).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (4).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., R9.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST29_.

ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

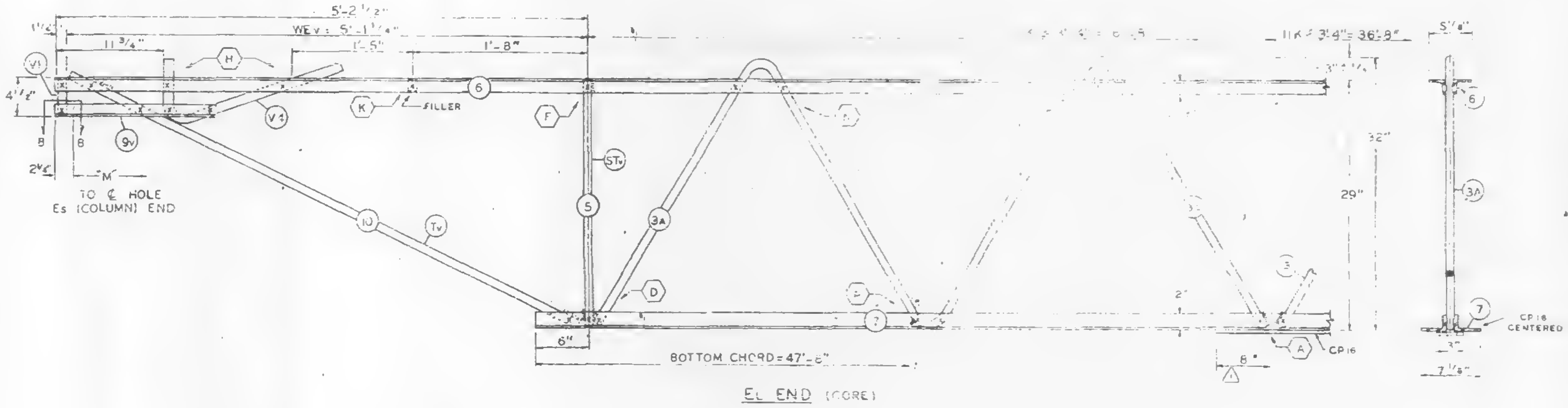
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17AL
TRUSSES ARE APPLICABLE TO C32T17AR TRUSSES
WITH CHANNEL CHIR AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



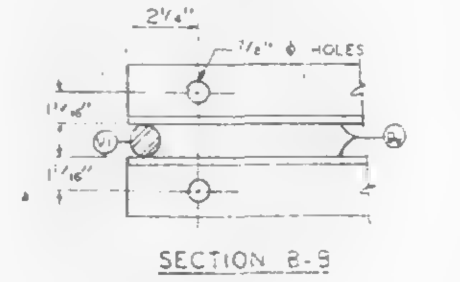
SECTION A-A

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 11-7-68 | AS NOTED | G.D.C. |
| 1 | 10-31-68 | CP16 | LWH |



BOTTOM CHORD = 47'-8"

EL END (CORE)



SECTION B-B

2 REF. DRWG.

| | |
|---|---|
| 7-AB1-18 | 10-4-68 |
| 7-AB1-54 | 10-4-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "U" C/L HOLES | CHORD PLATE 1 | | | | SPLICE FILLER | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | MK | SIZE | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T17AL-599 | 6 | A242 | 2"x1 1/2"x 31 | 59'-9" | 7 | A36 | 3" x 2" x 33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 58'-8 1/4"<br>12'-5 1/2"<br>10'-7 5/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4K @ 3'-4" = 5'-9" | 11 | 1.09 | 59'-3 3/4" | CP16 | A36 | 3'x 2" | 41'-2" | | C9 | 5" | P8 | A36 | 3 | 4 2"x39 | 5'-2" | RA-2 | A36 | 3"x 2"x 33 | 7 1/2" | | |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T17AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x 25"<br>2"x 1 1/2"x 25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CHIL<br>CHIR | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH |
| | C32T17AL-599 | 9v | A242 | 2"x1 1/2"x 25 | 1'-7" | 5'-1 1/4" | 10 | A242 | 1.14 | 5'-6 1/2" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | - | — | — | — | - | — | — | — |

2

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

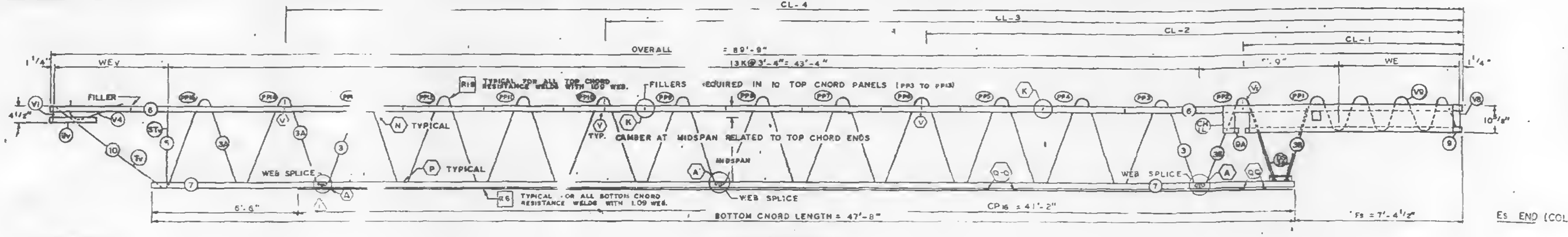
FLOOR TRUSS, C32T17AL (SEE NOTE 2) x 59'-9"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE 11/18/68 | DRAWN BY gdc<br>DATE OCT 8 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA<br>DATE OCT. 9 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A CARL WEBER | | FABRICATION CONT. NO W.T.C. 221 | SHEET NO ST 217AL |

1100-1179

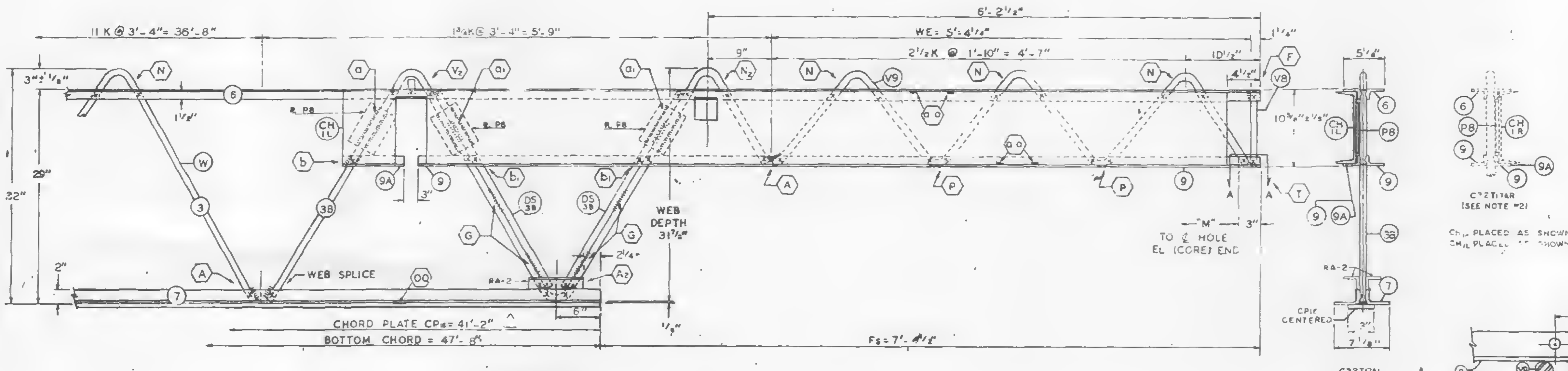
WTC1-131-LERA



CL-4
CL-3
CL-2
CL-1
OVERALL = 59'-9"
13K@3'-4" = 43'-4"
WEV
WE
1 1/4"
FILLER
R18 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
6'-6"
CP16 = 41'-2"
BOTTOM CHORD LENGTH = 47'-8"
FS = 7'-4 1/2"
EL END (CORE)
Es END (COLUMN)
10 3/8"

TRUSS ELEVATION

| FABRICATION REQUIREME[illegible] | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | - 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



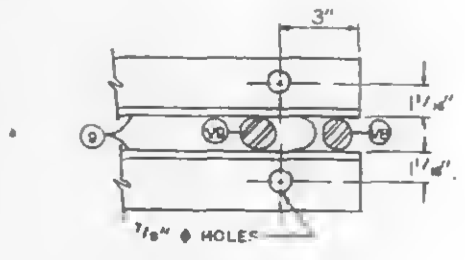
Es END (COLUMN)

ALL PANEL POI[illegible] RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (▨).
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM. ie., R6.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291.

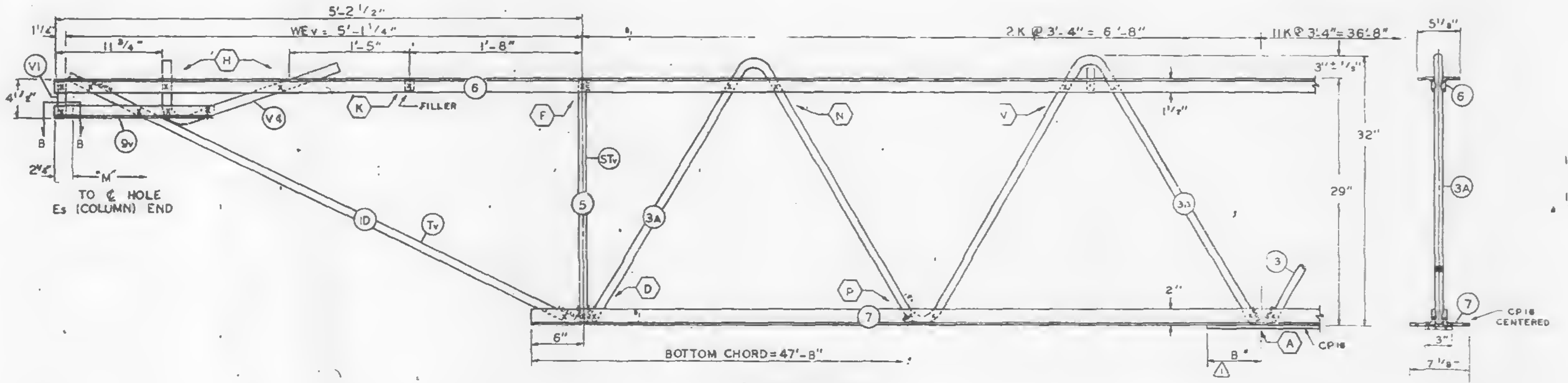
ALL CHANNEL DETAILS SHOWN ON SHEET ST 40/.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17AL TRUSSES ARE APPLICABLE TO C32T17AR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

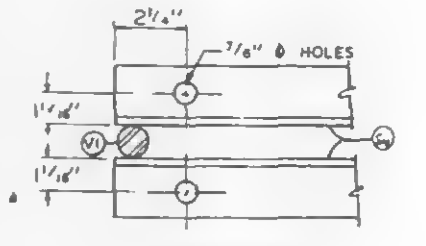


SECTION A-A



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 10-31-68 | CP16 | LWH |



SECTION B-B

REF. DRWG.

| | |
|---|---|
| 7-AB1-18 | 8-15-68 |
| 7-AB1-34 | 8-15-68 |
| 7-AB1-53 & 55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| SA-124 | 8-1-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE ⚠1 | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T17AL-599 | 6 | A242 | 2"x1 1/2"x.31 | 59'-9" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible]<br>12'-5 1/2"<br>10'-7 5/8" | 11 K @ 3'-4" = 36'-8"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 11 | 1.09" | 59'-3 3/4" | CP16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 3 | 4 1/2"x.39 | 5 1/2" | RA-2 | A36 | 3"x2"x.33" | 7 1/2" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENDTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T17AL-599 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>[illegible] 1/2" | 5'-4 1/4 | DS 3B | A242 | 1.14 | 2'-6 3/4 | — | — | — | - | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10[ 30<br>10[ 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

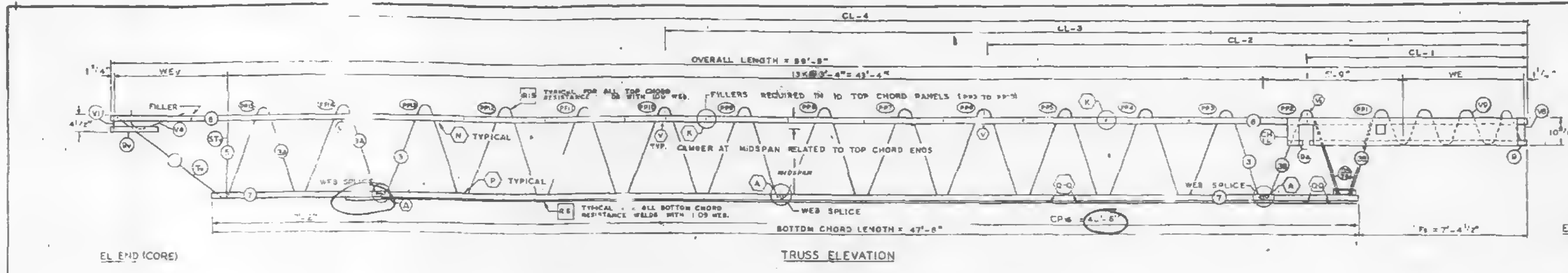
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEV | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T17AL-599 | 9V | A242 | 2"x1 1/2"x.25 | 1'-7" | 5'-1 1/4" | 10 | A242 | 1.14 | 5'-6 1/2" | 5 | A242 | 1.14 | 2'-4 3/4" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | - | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T17AL (SEE NOTE 2) x 59'-9"
WORLD TRADE CENTER TOWERS A & B

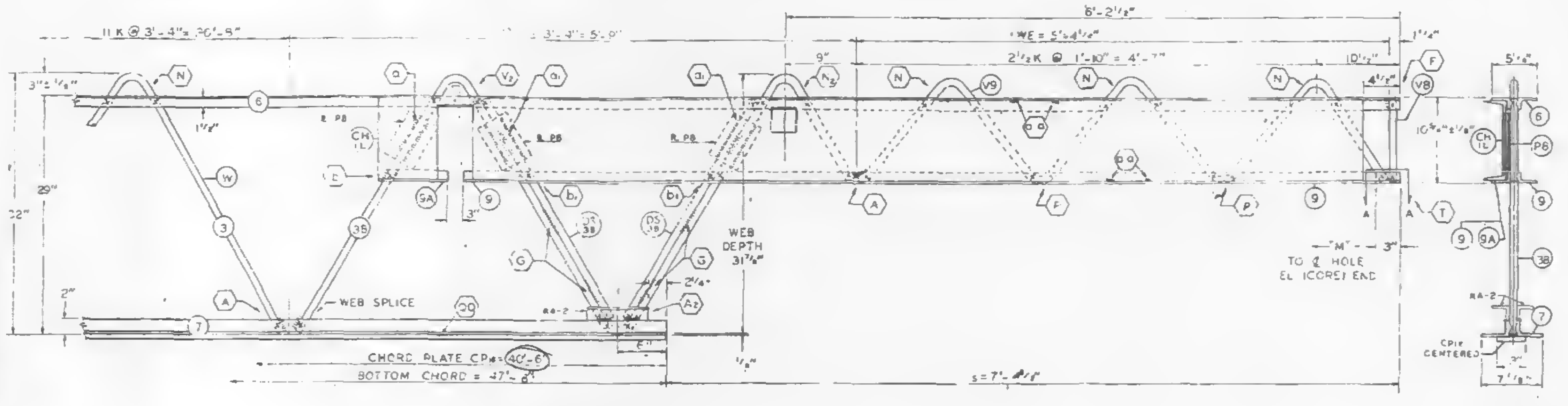
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. BY | DATE 11/7/68 | DRAWN BY gdc DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION FOR FABRICATOR BY | DATE | CHECKED BY T.M.CHURA DATE OCT 9 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBB | | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST 217AL |

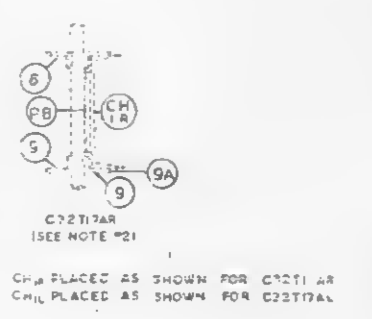

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-9"
13K @ 3'-4" = 43'-4"
WEv
WE
FILLER
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 109 WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB
BOTTOM CHORD LENGTH = 47'-8"
CP16 = 40'-6"
Fs = 7'-4½"
EL END (CORE)
Es END (COLUMN)

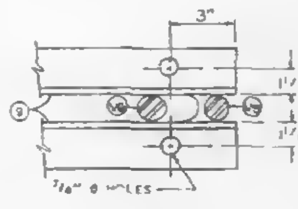
TRUSS ELEVATION

| | DESIGN | TOLERANCE |
|---|---|---|
| FABRICATION REQUIREMENTS | | |
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)


C32T17AR (SEE NOTE #2)
CHa PLACED AS SHOWN FOR C32T17AR
CHL PLACED AS SHOWN FOR C32T17AL



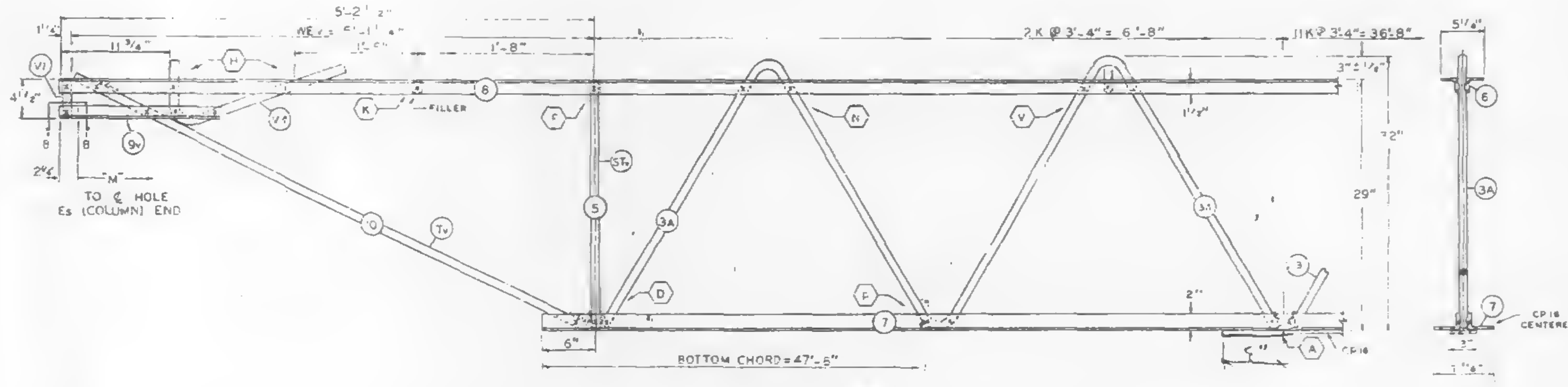
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (4)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (FIELD)
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM
ALL WELD DETAILS SHOWN ON SHEET ST

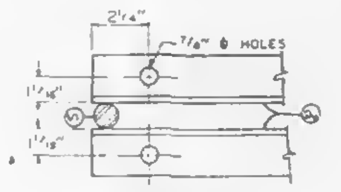
ALL CHANNEL DETAILS SHOWN ON SHEET ST
CHORD PLATE DETAILS SHOWN ON SHEET ST

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17AL
TRUSSES ARE APPLICABLE TO C32T17AR TRUSSES
WITH CHANNEL CHR AND BEARING ANGLE 9A
PLACED ON OPP. HAND AT THE



EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

| REF. DRWG. | |
|---|---|
| 7-AB1-16 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53 & 55 | 7-22-68 |
| 7-A63-2 | 1-3-68 |
| 7-A61-24 | 8-15-68 |
| 7-A64-17 & 172 | 6-15-68 |
| SA-124 | 8-1-68 |

10/29/68 SK

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T17AL-599 | 5 | A242 | 2"x1½"x .31 | 59'-2" | 7 | A36 | 3"x2"x.33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | [illegible] | [illegible] | 11 | 1.09 | 59'-3¾" | CP16 | A36 | 3"x.25 | 40'-6" | 4 | 1.09 | 3" | P6 | A36 | 3 | 4"x2"x.39 | 5'-2" | RA4 | A36 | 3"x2"x.33 | 7½" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T17AL 599 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 9'-5"<br>8½" | 5'-4½" | DS | A242 | 1.14 | 2'-6¾" | - | — | - | - | A242 | 1.14 | 10½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CHL<br>CHR | A36<br>A36 | 10"x30<br>10"x30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

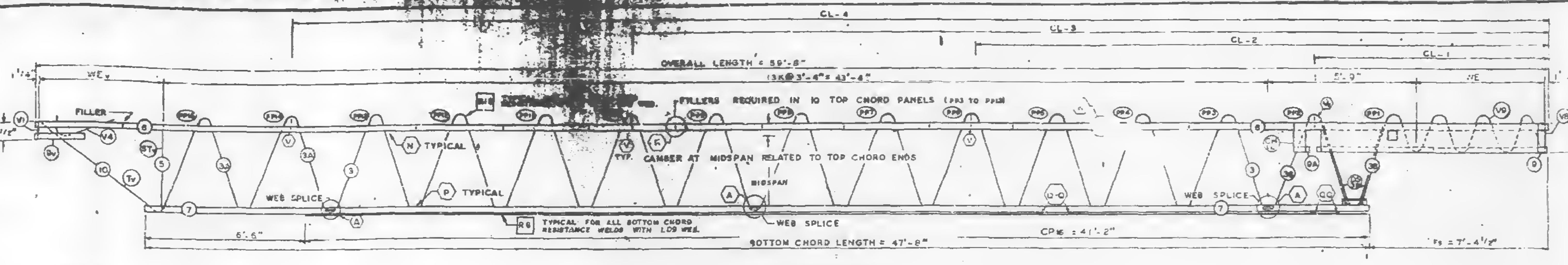
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH |
| | C32T17AL-599 | 9v | A242 | 3"x1½"x.25" | 1'-7" | 5'-1¼" | 10 | A242 | 1.14 | 5'-6½" | 5 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | - | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T17AL (SEE NOTE 2) x 59'-9"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-16
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE
DRAWN BY gtc
DATE OCT. 8 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.W. CHURA
DATE OCT. 9 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A CARL WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. ST 217AL


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
13K@3'-4" = 43'-4"
WEv
WE
FILLER
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP12)
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH L09 WEB.
6'-5"
CP16 = 41'-2"
BOTTOM CHORD LENGTH = 47'-8"
Fs = 7'-4 1/2"
10 3/8"
EL END (CORE)
Es END (COLUMN)

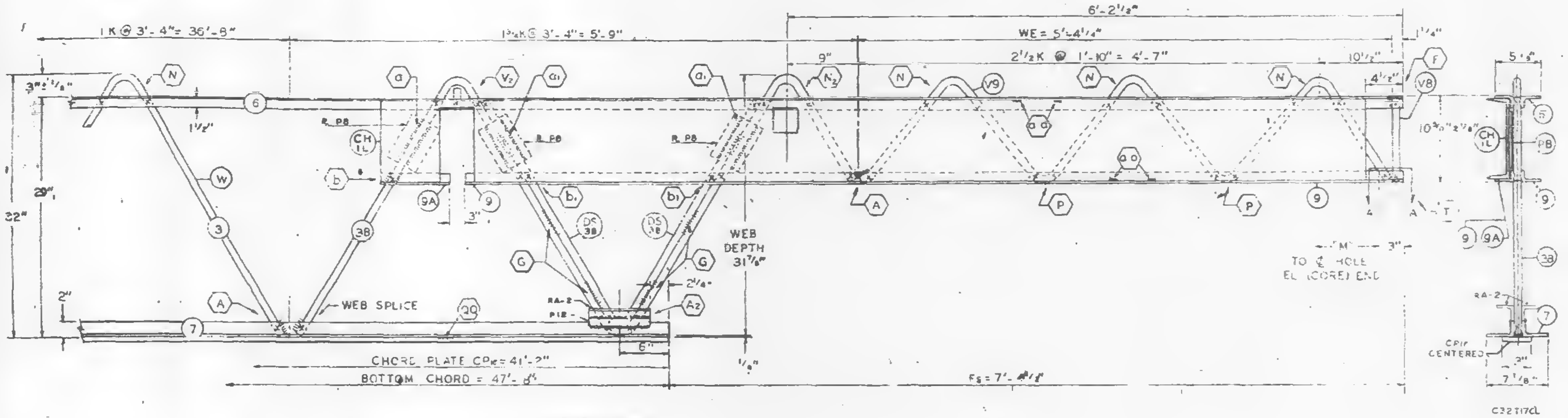
## TRUSS ELEVATION

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

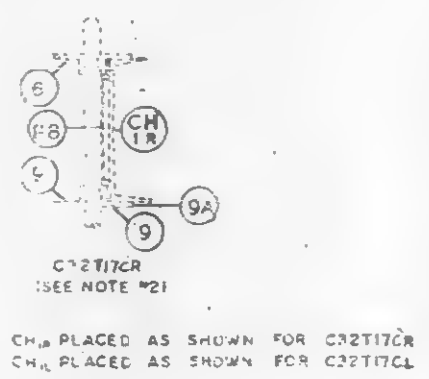
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R6 .
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.

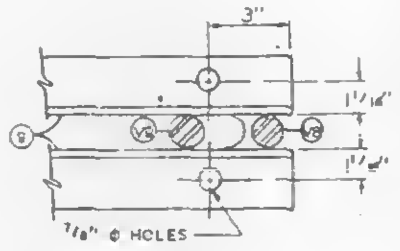
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T17CL TRUSSES ARE APPLICABLE TO C32T17CR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

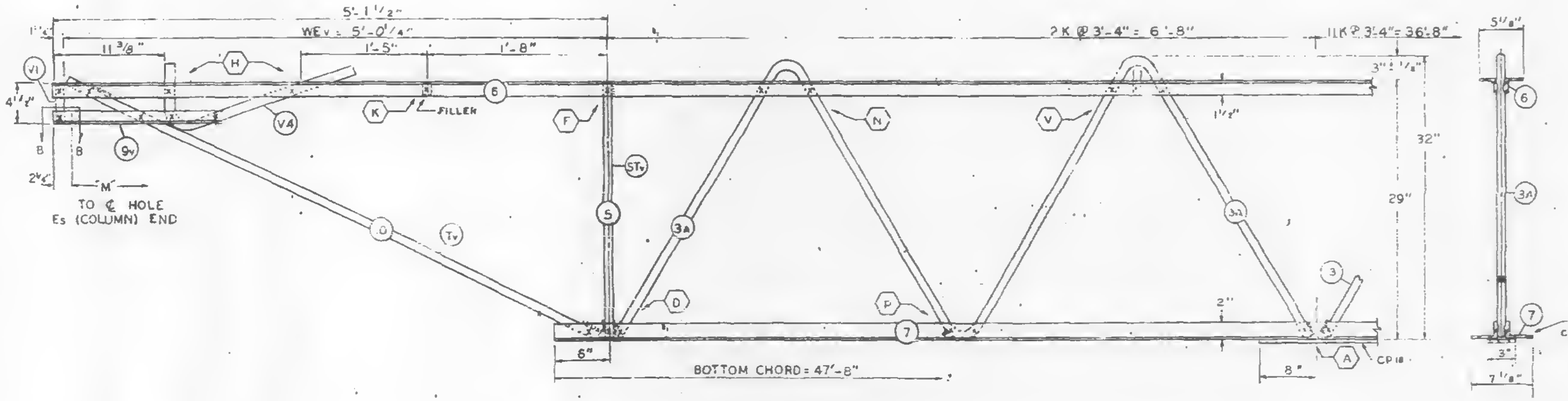


## Es END (COLUMN)

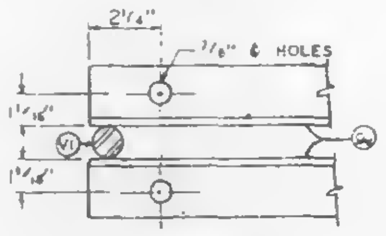

CH1R
C32T17CR (SEE NOTE 2)
CH1R PLACED AS SHOWN FOR C32T17CR
CH1L PLACED AS SHOWN FOR C32T17CL



## SECTION A-A



## EL END (CORE)



## SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|

REF. DRWG.
7-AB1-16 10-4-68
7-AB1-54 11-25-68
7-AB1-53 7-22-68
7-AB3-? 1-3-68
7-AB3-24 8-15-68
7-AB4-17 & 17.2 10-4-68
SA-124 10-11-68
7-AB1-85 10-15-68

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES |  |  |  | BOTTOM CHORD TWO ANGLES |  |  |  | MAIN WEB "W" |  |  |  |  | FILLER |  | "M" C/C HOLES | CHORD PLATE |  |  |  | CONNECTION FILLERS |  |  | CHANNEL PLATES |  |  |  |  | REINFORCING ANGLES |  |  |  | SPECIAL PLATES |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK | TYPE STEEL | CHORD | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. |  | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T17CL-598 | 6 | A242 | 2"x1 1/2"x .31 | 59'-8" | 7 | A36 | 3"x 2" x .33" | 47'-8" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 66'-8 1/4"<br>12'-9 1/2"<br>10'-7 5/8" | 11 K@3'-4" = 36'-8"<br>2 K@3'-4" = 6'-8"<br>3.4K@3'-4" = 5'-9" | 11 | 1.09 | 59'-2 3/4" | CP16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 3 | 4 1/2"x.39 | 5 1/2" | RA2 | A36 | 3"x2"x.33" | 7 1/2" | P12 | A36 | 1"x3/8" | 7'-2" |

COLUMN END

| Es | TRUSS DESIGNATION | BEARING ANGLES |  |  |  |  | WE | DOUBLE STRUT |  |  |  | CHORD PLATE |  |  |  | END STIFFENER MK. V8 |  |  | END STIFFENER MK. V9 |  |  | END STIFFENER MK. V10 |  |  | CHANNEL |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH |  | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
|  | C32T17CL-598 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>[illegible] 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/8" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WEv | DIAGONAL "Tv" STRUT |  |  |  | VERTICAL "STv" STRUT |  |  |  | END STIFFENER MK. V1 |  |  | END STIFFENER MK. V2 |  |  | END STIFFENER MK. V4 |  |  | DOUBLE STRUT |  |  |  | DOUBLE STRUT |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MK. | TYPE STEEL | CHORD SIZE | LENGTH |  | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
|  | C32T1[illegible]-598 | 9v | A242 | 2"x1 1/2"x .25" | 1'-6" | 5'-0 1/4" | 10 | A242 | 1.14 | 5'-5 1/8" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2 1/2" | - | — | — | — |  | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

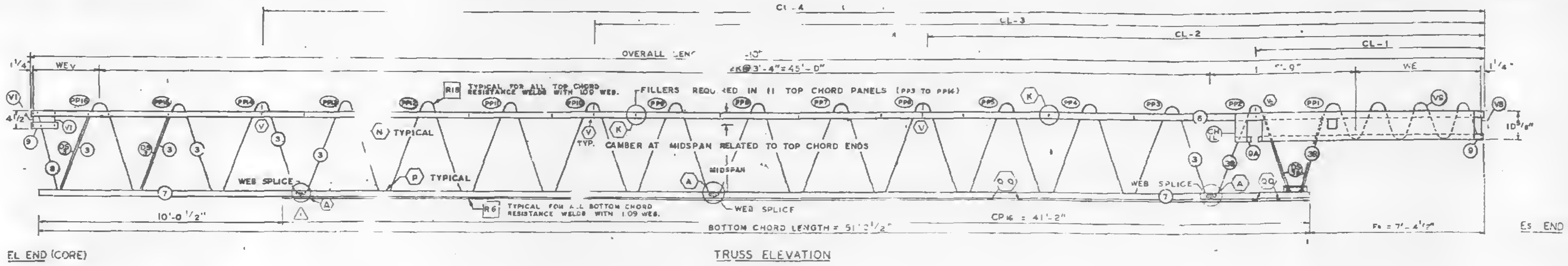
| LOCATION OF TRANS. TRUSS |  |  |  |  |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 |  |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T17CL (SEE NOTE 2) x 59'-8"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

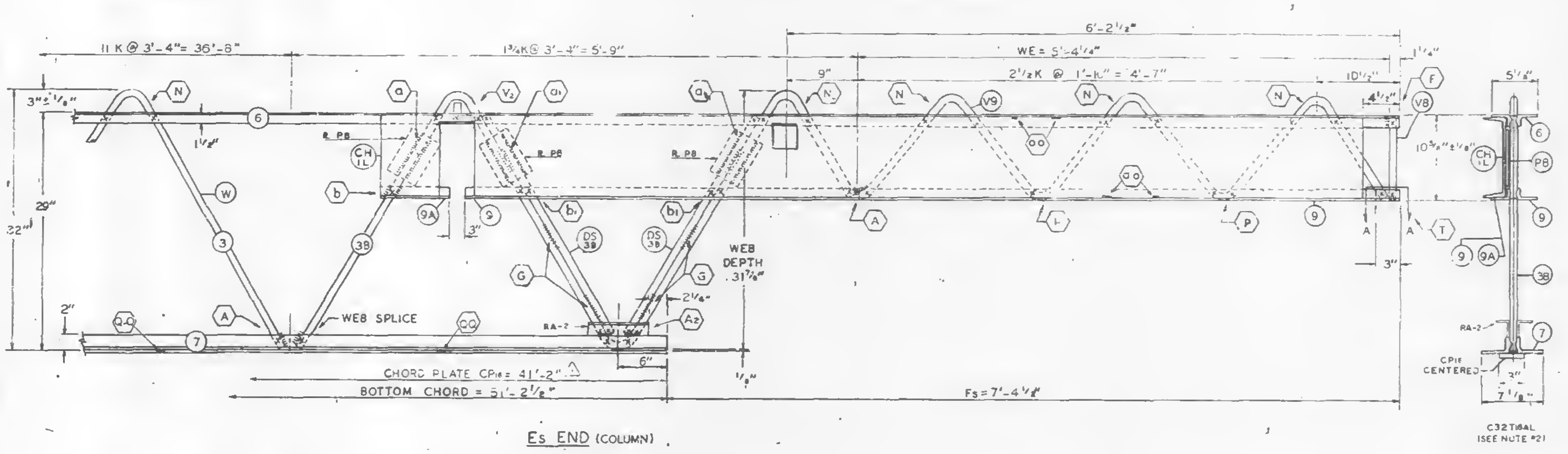
|  |  |  |  |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS |  | DESIGN DRAWING NO. 7-AB1-16 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. | DATE 4/1969 | DRAWN BY: [illegible] DATE MAR 28 1969 |  |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA DATE DEC 18, 1969 | [illegible] |
| DETAILED BY: A CARL [illegible] |  | FABRICATION CONT. NO. W.T.C. 221 | SHEET ST 217 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH 58'-10"
WEv
WE
17 K@3'-4"=45'-0"
1'-9"
1¼"
4½"
10⅝"
V1
V8
R18 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH .109 WEB.
FILLERS REQUIRED IN 11 TOP CHORD PANELS (PP3 TO PP14)
PP16
PP15
PP14
PP13
PP12
PP11
PP10
PP9
PP8
PP7
PP6
PP5
PP4
PP3
PP2
PP1
N TYPICAL
P TYPICAL
V TYP.
K
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R6 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .109 WEB.
10'-0½"
BOTTOM CHORD LENGTH = 51'-2½"
CP16 = 41'-2"
Fs = 7'-4½"
CH
9A
3B
3
6
7
9
A

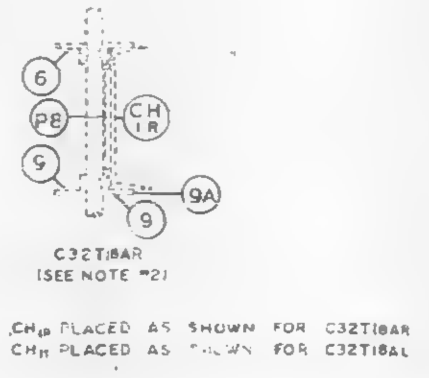
EL END (CORE)

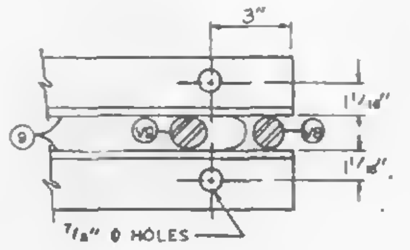
TRUSS ELEVATION

Es END (COLUMN)



Es END (COLUMN)


6
PB
CH IR
9
9A
C32T18AR (SEE NOTE #2)
CHIR PLACED AS SHOWN FOR C32T18AR
CHIL PLACED AS SHOWN FOR C32T18AL



SECTION A-A

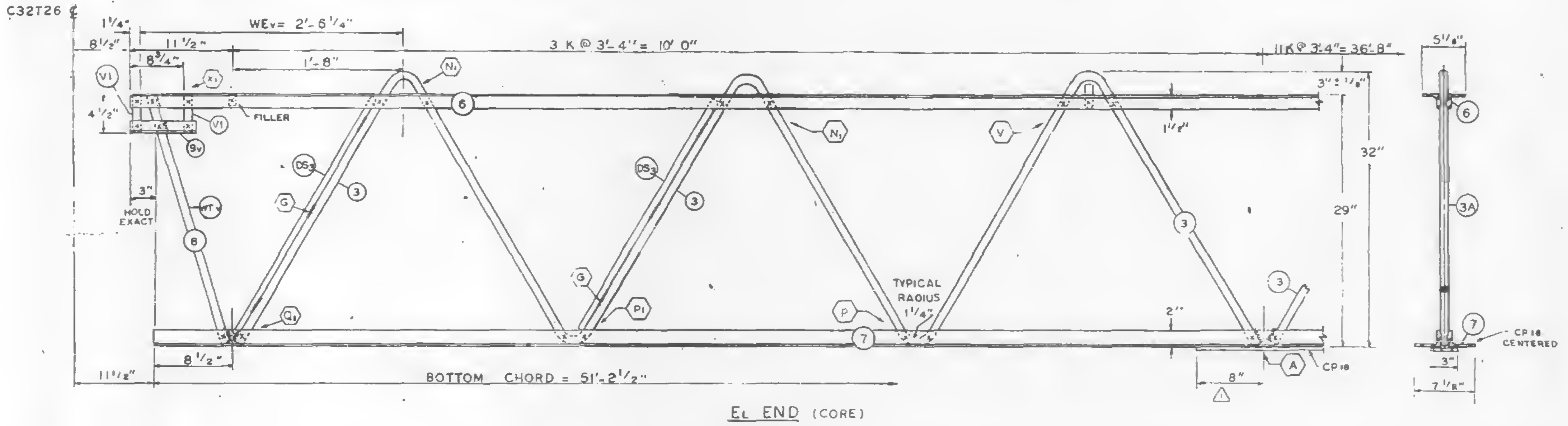
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. (▨).
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie.. ⟨A⟩.
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie.. R9 .
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 292 & ST 293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T18AL TRUSSES ARE APPLICABLE TO C32T18AR TRUSSES WITH CHANNEL CHIR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

### FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3 " |
| WEB DEPTH | 31 7/8" | ± 1/4" |



EL END (CORE)

| △ | 10-31-68 | CP16 | L.W.H |
|---|---|---|---|
| NO | DATE | REVISION | BY |

| REF. DRWG. | | |
|---|---|---|
| | 7-AB1-17 | 8-15-68 |
| | 7-AB1-54 | 8-15-68 |
| | 7-AB1-53 & 55 | 7-22-68 |
| | 7-AB3-2 | 1-3-68 |
| | 7-AB3-24 | 8-15-68 |
| | 7-AB4-17 & 17.2 | 8-15-68 |
| | SA-124 | 8-1-68 |
| | 7-AB4-13 | 8-15-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE △ | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T18AL-5810 | 6 | A242 | 2"x1½"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2½" | 3<br>3B | A36<br>A242 | .109<br>.114 | 5'-2½"<br>10'-7⅝" | 14 K@3'-4"=46'-8"<br>1¾K@3'-4"=5'-9" | 12 | .109" | | CP16 | A36 | 3"x.25 | 41'-2" | 4 | .109 | 3" | PB | A36 | 3 | 4½"x.39 | 5½" | RA-2 | A36 | 3"x2"x.33" | 7½" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T18AL-5810 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25 | 2<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS 3B | A242 | .114 | 2'-6¾" | — | — | — | — | A242 | .114 | 10½" | A242 | .114 | 8'-3⅞" | — | — | — | CHIL<br>CHIR | A36<br>A36 | 10⊏30<br>10⊏30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

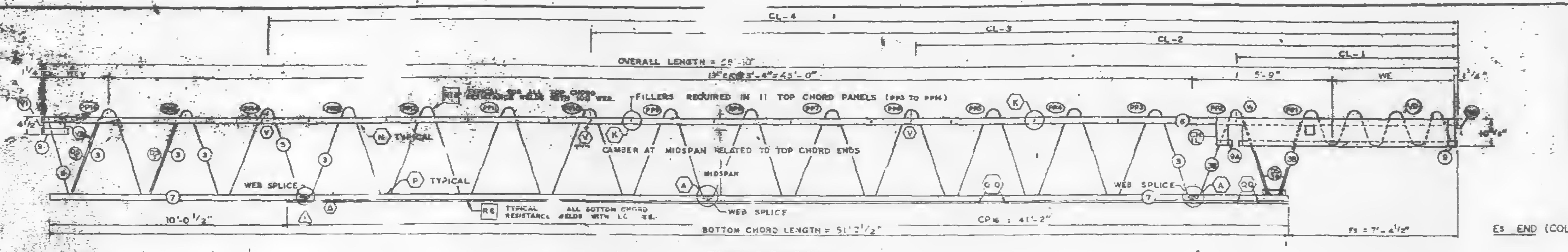
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER (2 REQ'D) MK. V1 | | | END STIFFENER (2 REQ'D) MK. V2 | | | END STIFFENER (2 REQ'D) MK. V4 | | | DOUBLE STRUT (2 REQ'D) | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T18AL-5810 | 9v | A242 | 2"x1½"x.25 | 10" | 2'-6¼" | 8 | A36 | .09 | 2'-5¾" | — | — | — | — | A36 | .109 | 4⅝" | — | — | — | — | — | — | DS3 | A242 | .75 | 2'-6¾" | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

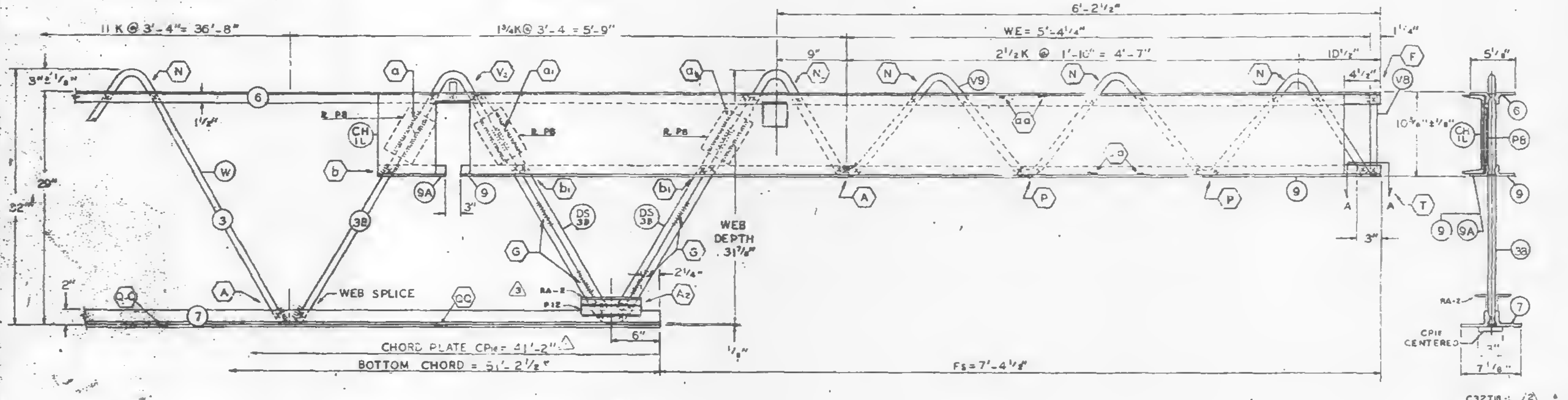
FLOOR TRUSS C32T18AL (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-17
PLATE
APPROVED FOR FABRICATION BY: FOR PONYA
DATE 11/7/68
DRAWN BY g.l.c.
DATE OCT. 8, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
DATE
CHECKED BY T.M.CHURA
DATE OCT 10, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A CARL WEBER
FABRICATION CONT NO W T C 221
SHEET NO. ST 218AL

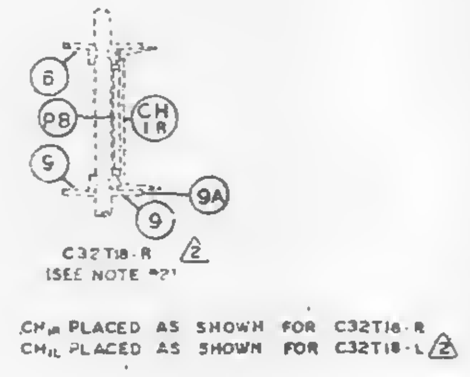


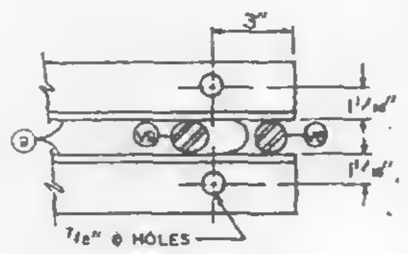
TRUSS ELEVATION

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLE[illegible] |
| CAMBER AT MIDSPAN | 2 1/16" | ± 3 [illegible] |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± [illegible] |
| OVERALL LENGTH | 58'-10" | ± [illegible] |
| WEB DEPTH | [illegible] 7 | ± [illegible] |



ES END (COLUMN)


C32T18-R
(SEE NOTE "2")
CH1R PLACED AS SHOWN FOR C32T18-R
CH1L PLACED AS SHOWN FOR C32T18-L

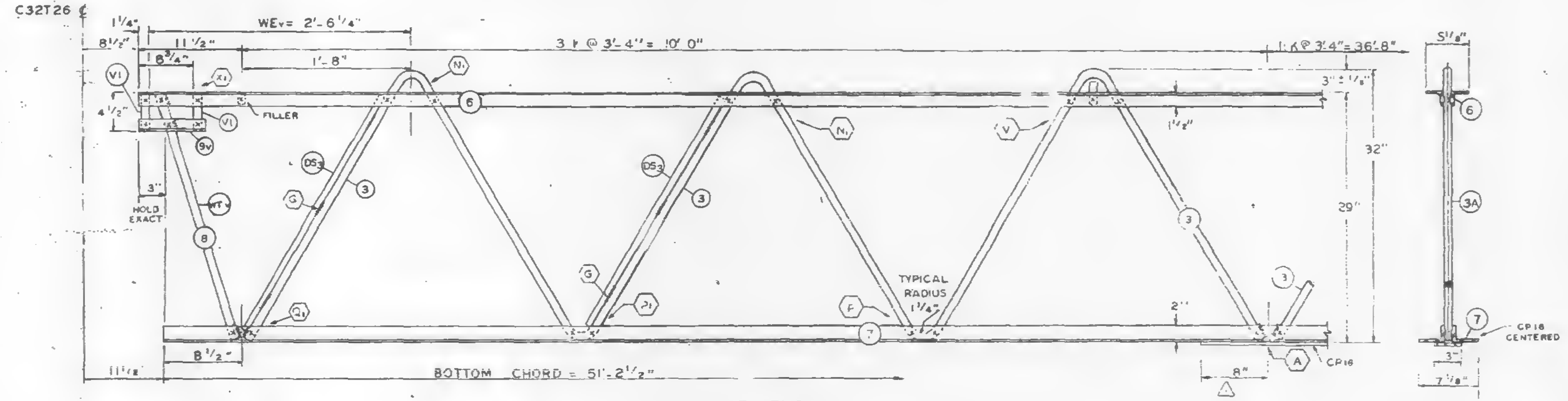


SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES. ([illegible]).
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e., [RP].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR V1 DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T18 L TRUSSES ARE APPLICABLE TO C32T18 R TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN. ⚠2



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 12-10-68 | AS NOTED | G.D.C. |
| 2 | 11-7-68 | AS NOTED | G.D.C. |
| 1 | 10-31-68 | CP18 | L.W.H. |

⚠3 REF. DRWG.

| | |
|---|---|
| 7-AB1-17 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB2-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB8-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB4-13 | 7-22-68 |
| 7-AB1-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C.C. HOLES | CHORD PLATE ⚠1 | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES ⚠3 | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⚠2 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T18-L-5810 | 6 | A242 | 2"x1 1/2"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2 1/2" | 3 | A36 | 1.09 | [illegible]-2 1/2" | 14 K @ 3'-4" = 46'-8" | 12 | 1.09" | | CP16 | A36 | 3"x.25 | 41'-2" | 4 | 1.09 | 3" | P8 | A36 | 3 | 4 1/2"x.39 | 5 1/2" | RA2 | A36 | 3"x2"x.33" | 7 1/8" | P12 | A36 | 1"x3/8" | 7 1/8" |
| | | | | | | | | | 3B | A242 | 1.14 | 10'-7 3/8" | 1 3/4 K @ 3'-4" = 5'-9" | | | | | | | | | | | | | | | | | | | | | | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | ⚠2 | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T18-L-5810 | 9 | A242 | 2"x1 1/2"x.25" | 2 | 9 1/2" | 5'-4 1/4" | DS 3B | A242 | 1.14 | 2'-6 3/4" | — | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH1L | A36 | 10 : 30 | 10'-0" |
| | | 9A | A242 | 2"x1 1/2"x.25" | 1 | 8 1/2" | | | | | | | | | | | | | | | | | | | CH1R | A36 | 10 : 30 | 10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

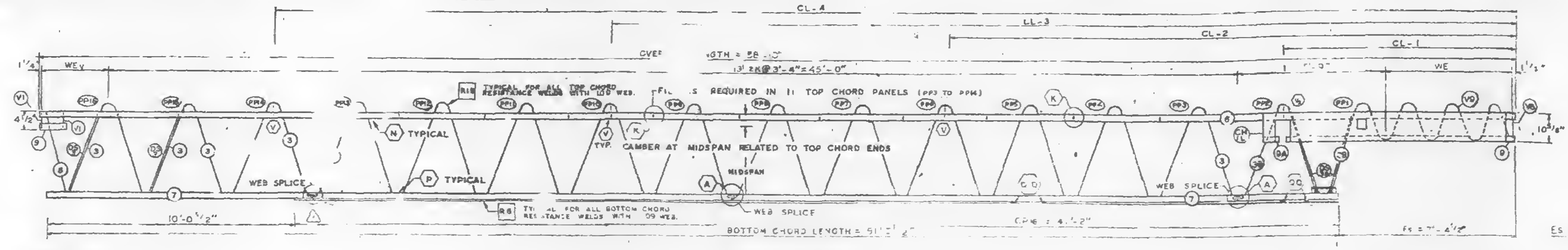
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | STIFFENER (2 REQ'D) | | | | | | | | | DOUBLE STRUT (2 REQ'D) | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | ⚠2 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T18-L-5810 | 9v | A242 | 2"x1 1/2"x.25 | 10" | 2'-6 1/4" | 8 | A36 | .09 | 2'-3 3/4" | — | — | — | — | A36 | 1.09 | 4 3/8" | — | — | — | — | — | — | DS 5 | A242 | .75 | 2'-6 3/4" | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T18-L ⚠2 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-17 | PLATE |
| APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A. | DATE 12/16/68 | DRAWN BY: gdc DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: LACLEDE STEEL CO. FOR FABRICATOR | DATE | CHECKED BY: T.M. CHURA DATE OCT. 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST-218 L ⚠3 |

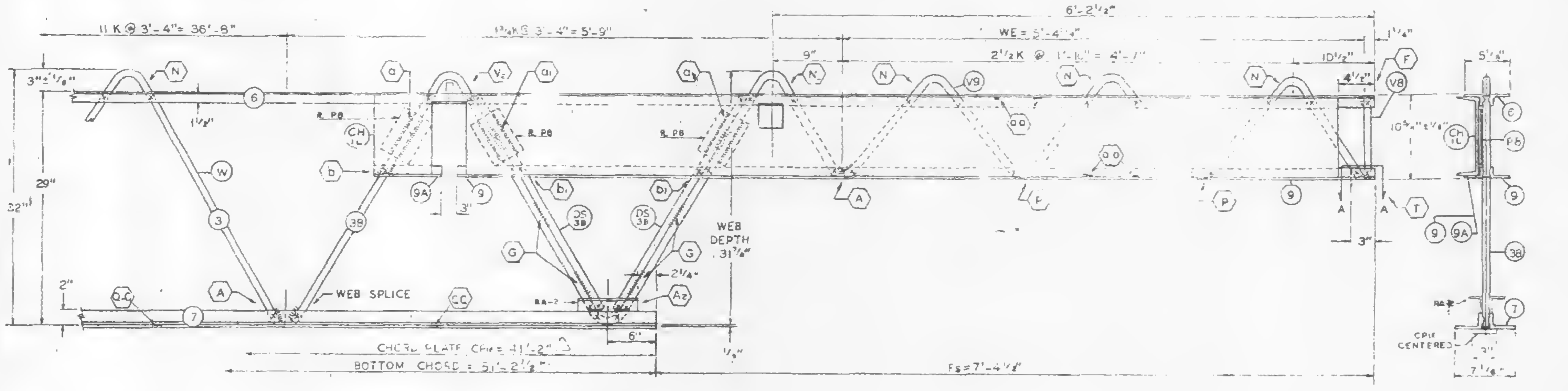

CL-4
LL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
17½K @ 3'-4" = 45'-0"
WE
WEv
R18 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH .109 WEB.
FILLERS REQUIRED IN 11 TOP CHORD PANELS (PP3 TO PP14)
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
R8 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .109 WEB.
10'-0½"
BOTTOM CHORD LENGTH = 51'-2½"
CP16 = 41'-2"
Fs = 7'-4½"
10⅜"

EL END (CORE)

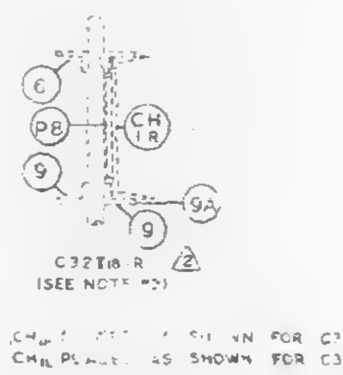
TRUSS ELEVATION

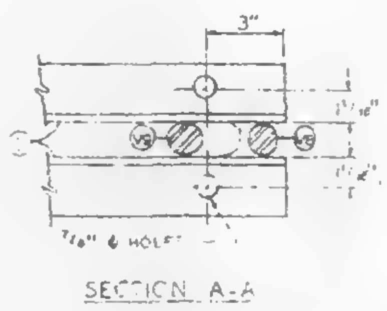
ES END (COLUMN)

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4 | ± 1/4" |
| OVERALL LENGTH | 58'-10 | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)





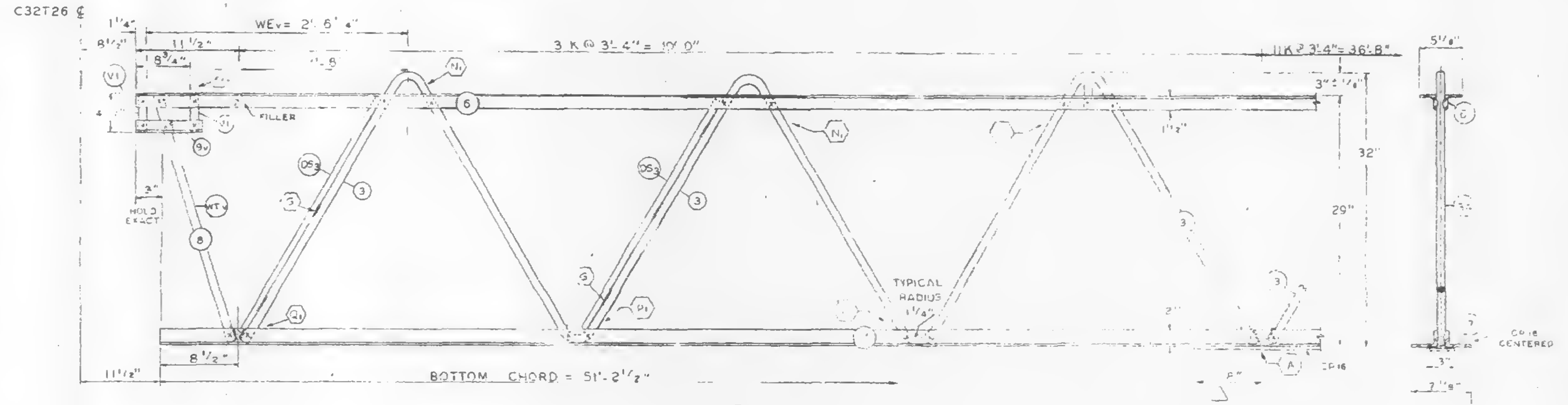
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R8.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST 292 & ST 293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T18-L TRUSSES ARE APPLICABLE TO C32T18 R TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN. ②

C32T26 ℄



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ② | 11-7-68 | AS NOTED | GOC |
| ① | 10-31-68 | CP-6 | L.W.H |

② REF. DRWG.

| | |
|---|---|
| 7-AB1-17 | 10-4-68 |
| 7-AB1-54 | 10-4-68 |
| 7-AB1-55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-7 & 17 | 10-4-68 |
| SA-24 | 10-11-68 |
| 7-AB4-13 | 7-22-68 |
| 7-AB1-55 | 10-15-68 |

LACLEDE ELECTROCOAT
REC. NO. 10001

| TRUSS DESIGNATION ② | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" C/C HOLES | CHORD PLATES ① MK | TYPE STEEL | SIZE | LENGTH | MK | [illegible] | LENGTH | CHANNEL PLATES MK | TYPE STEEL | [illegible] | SIZE | LENGTH | REINFORCING ANGLES (2 REQ'D) MK | TYPE STEEL | SIZE | LENGTH | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T18 L-5810 | 6 | A242 | 2"x1½"x .31 | 58'-10" | 7 | A36 | 3"x 2" x .33" | 51'-2½" | 3<br>3B | A36<br>A242 | .109<br>.114 | 51'-2½"<br>10'-7 5/8" | 14 K @ 3'-4" = 46'-8"<br>1¾K @ 3'-4" = 5'-9" | 12 | .109" | | CP16 | A36 | 3"x2" | 41'-2" | 4 | [illegible] | 3" | C6 | A36 | 3 | 4½"x.39 | 5'-2" | RA-2 | A36 | 3"x 2"x .33" | 7½" | |

COLUMN END

| Es END | TRUSS DESIGNATION ② | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T18 L 5810 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.29" | 2<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS 3B | A242 | .114 | 2'-8¾" | – | – | — | – | A242 | .114 | 10½" | A242 | .114 | 8'-3 7/8" | — | — | — | CHL<br>CHR | A36<br>A36 | 10 .30<br>10 .30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

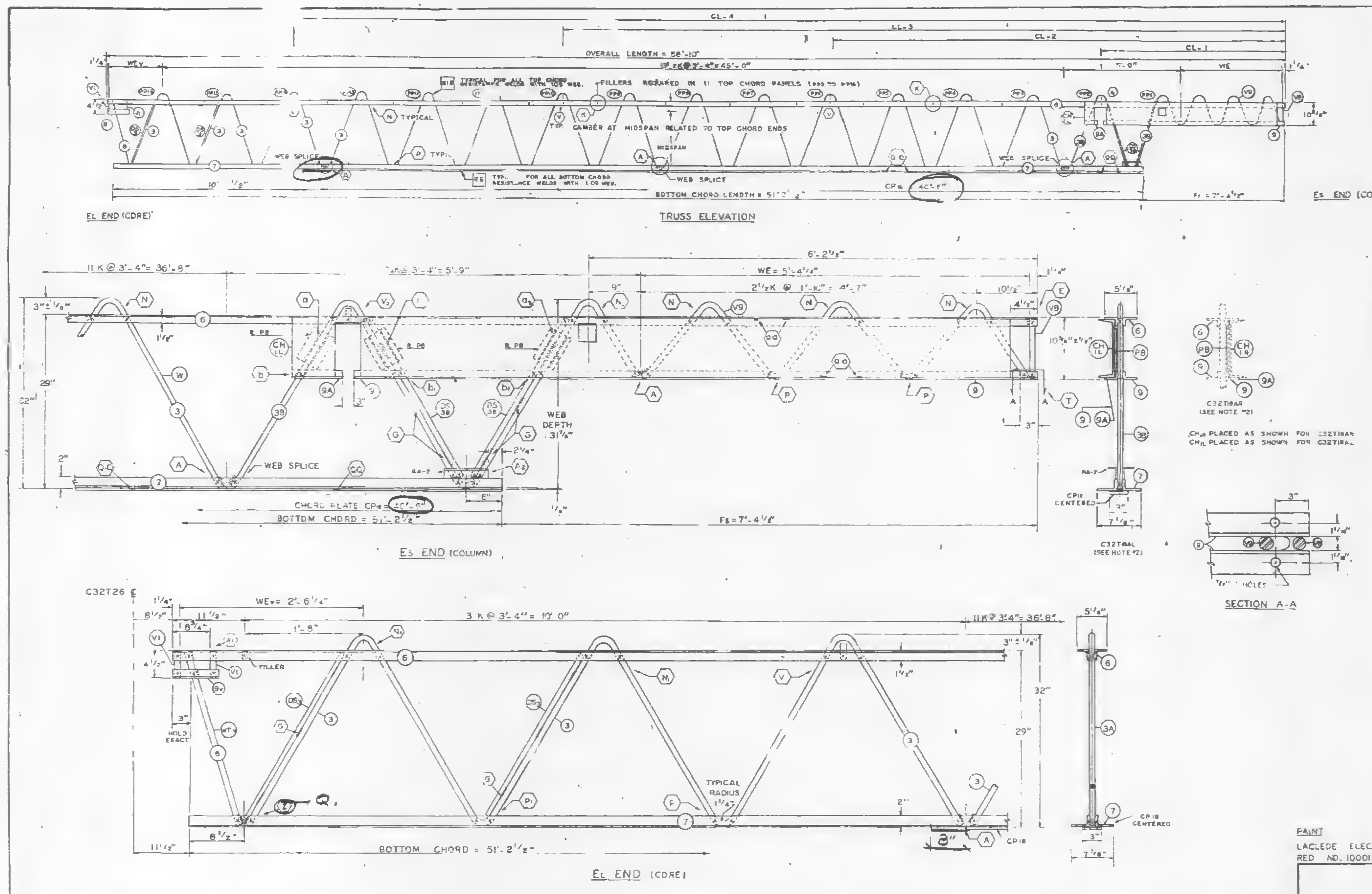
CORE END

| EL END | TRUSS DESIGNATION ② | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "Tv" STRUT MK | TYPE STEEL | DIA. | LENGTH | VERTICAL "STv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER (2 REQ'D) MK. V1 TYPE STEEL | DIA. | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT (2 REQ'D) MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T18-L-5810 | 9v | A242 | 2"x1½"x .25 | 10" | 2'-6¼" | 8 | A36 | .109 | 2'-5¾" | – | — | — | — | A36 | .109 | 4 3/8" | — | – | — | — | — | — | DS 3 | A242 | .75 | 2'-6¾" | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T18-L ② (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-17 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A | DATE 11/18/68 | DRAWN BY gdc<br>DATE OCT 3, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA<br>DATE OCT 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT NO WTC 221 | SHEET NO ST 218 L ② |



| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2 1/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED. [illegible] ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. [illegible]
LETTERS IN HEXAGON INDICATE WELD DETAIL i.e. [illegible]
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. i.e. [illegible]
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 & ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST402.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR V1 DETAIL.

NOTE 2

DETAILS & ELEVATIONS SHOWN FOR C32T1BAL TRUSSES ARE APPLICABLE TO C32T1BAR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

CH1R PLACED AS SHOWN FOR C32T1BAR
CH1L PLACED AS SHOWN FOR C32T1BAL

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF. DRWG.
7-A81-17 4-15-68
7-A81-54 8-15-68
7-A81-53 & 55 7-22-68
7-A83-2 1-3-68
7-A83-24 8-15-68
7-A84-17 & 172 8-15-68
S4-124 6-1-68
7-A84-13 8-15-68

10/29/68 SK

**PAINT**

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" 9/16 HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T1BAL-5810 | 6 | A242 | 2"x1 1/2"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2 1/2" | 3<br>3B | A36<br>A242 | 1.09<br>1.14 | 51'-2 1/2"<br>10'-7 5/8" | 14 K@3'-4"=46'-8"<br>3 4K@3'-4" = 5'-9" | 12 | 1.09" | | CP 18 | A36 | 3"x25 | 40'-6" | 4 | 1.09 | 3" | P6 | A36 | 3 | 4 1/2"x39 | 5 1/2" | RA-2 | A36 | 3"x2"x.33" | 7 1/2" | | |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T1BAL-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4 | DS 4 | A242 | 1.14 | 2'-6 3/4" | - | — | — | — | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/4 | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 ⊏ 30<br>10 ⊏ 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/4" |

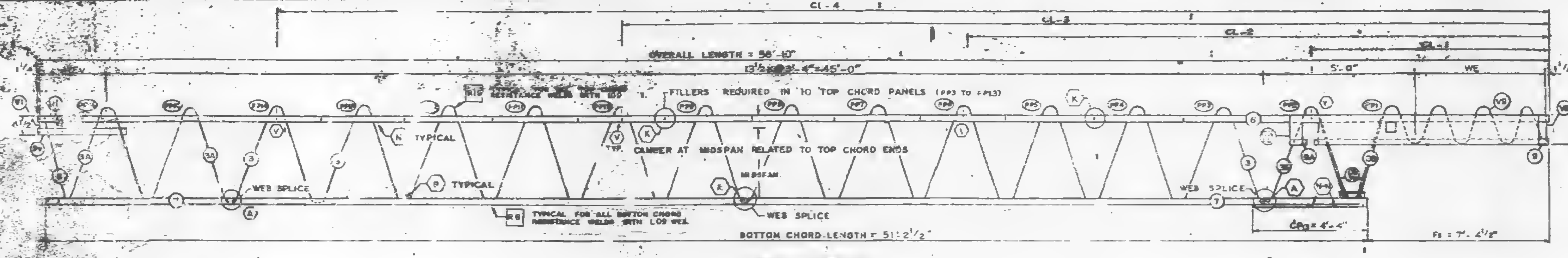
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE1 | DIAGONAL "T1" STRUT | | | | VERTICAL "ST1" STRUT | | | | END STIFFENER (2 REQ'D) | | | | | | | | | DOUBLE STRUT (2 REQ'D) | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T1BAL-5810 | 9 | A242 | 2"x1 1/2"x.25" | 10" | 2'-6 1/4" | 8 | A36 | 1.09 | 2'-5 3/4" | - | — | — | — | A36 | 1.09 | 4 3/8" | — | — | — | — | — | — | DS 3 | A242 | .75 | 2'-6 3/4" | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

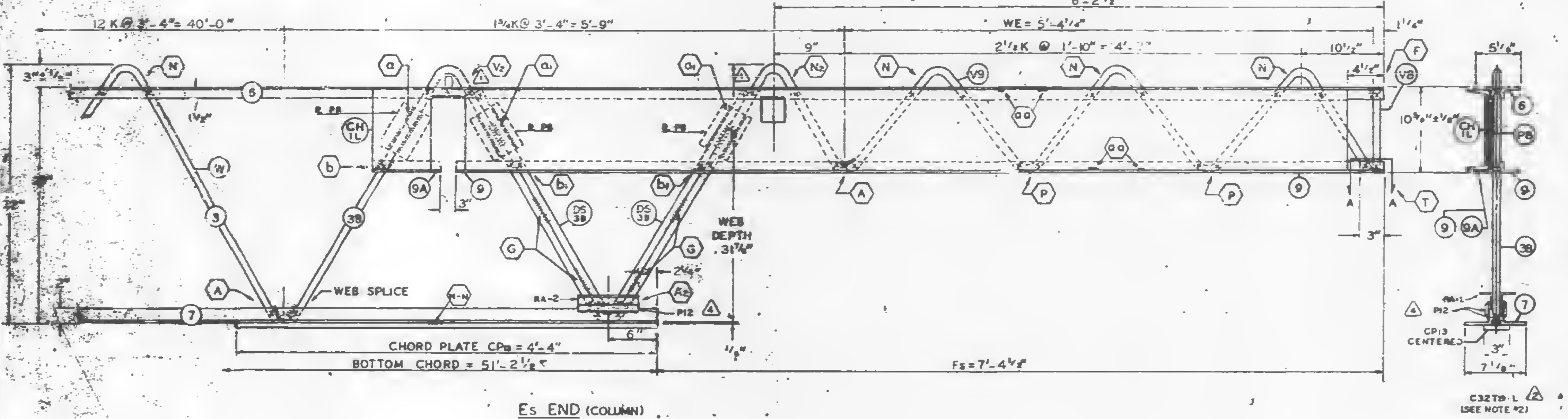
FLOOR TRUSS C32T1BAL (SEE NOTE #2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A81-17
PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
DRAWN BY gdc DATE OCT. 8 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY T.M. CHURD DATE OCT. 10 1968
IN CHARGE OF PROJ. [illegible]
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. WTC 221
SHEET NO. ST 218AL

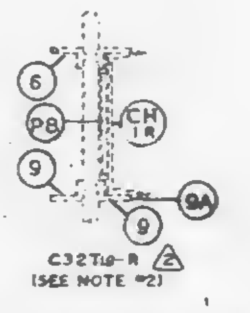

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
13 1/2 K@3'-4"=45'-0"
5'-0"
WE
1 1/8"
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH L09 WEB
BOTTOM CHORD LENGTH = 51'-2 1/2"
CPB = 4'-4"
Fs = 7'-4 1/2"
10 1/8"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

| FABRICATION | | |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | 29" | ± 1/8" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± [illegible] |
| WEB DEPTH | 31 7/8" | ± 1/8" |



Es END (COLUMN)

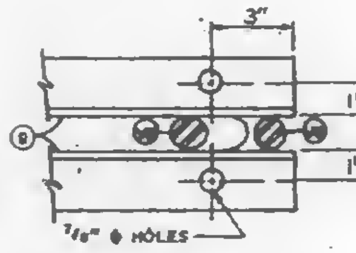


CH R PLACED AS SHOWN FOR C32T19-R
CH L PLACED AS SHOWN FOR C32T19-L

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES [illegible] LETTERS IN HEXAGON INDICATE WELD DETAILS [illegible] LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH [illegible] QUALITY CONTROL PROGRAM. [illegible] ALL WELD DETAILS SHOWN ON [illegible] ST 292 & ST 293. ALL CHANNEL DETAILS SHOWN ON SHEET [illegible] CHORD PLATE DETAILS SHOWN ON SHEET [illegible] SEE SHEET ST295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T19-L TRUSSES ARE APPLICABLE TO C32T19-R TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

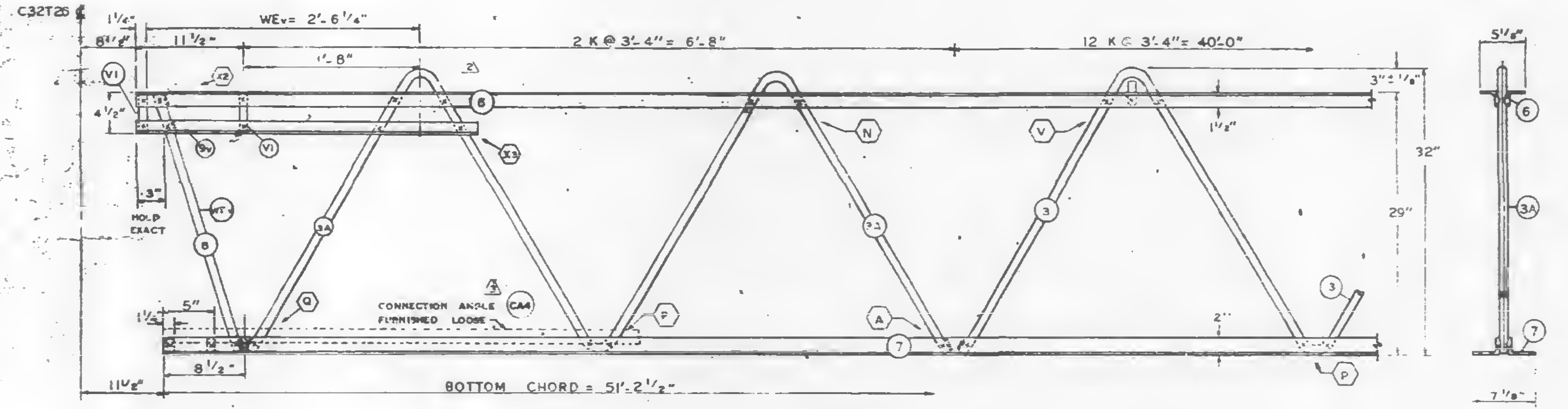


SECTION A-A

| NO | DATE | REVISION |
|---|---|---|
| 4 | 12-20-68 | AS NOTED |
| 3 | 12-3-68 | AS NOTED |
| 2 | 11-7-68 | AS NOTED |
| 1 | 10-31-68 | AS NOTED |

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-18 | 10-4-68 |
| 7-AB-34 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB2-2 | 1-3-68 |
| 7-AB-24 | [illegible] |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7 AB4-11 | 7-22-68 |
| 7-AB1-55 | 10-15-68 |



EL END (CORE)

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLE | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | NO. | DIA. | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T19-L-5810 | 6 | A242 | 2"x1 1/2"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2 1/2" | 3<br>3A<br>3B | A36<br>A242<br>A242 | L09<br>L14<br>L14 | 74'-9"<br>12'-5 1/2"<br>10'-7 3/8" | 12 K@3'-4"=40'-0"<br>2 K@3'-4"=6'-8"<br>1 3/4 K@3'-4"=5'-9" | 12 | 1.09 | — | — | — | — | — | 4 | 1.09 | 3" | P8 | A36 | 3 | 4"x2"x.39 | 5 1/2" | RA2 | A36 | 3"x2"x.30" | [illegible] | P12 | A36 | 1"x3/8" | 7 1/2" |

4

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | MK. V8 | | | | | | MK. V10 | | | | | | |
| | | 2 | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | — | C32T19-L-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25<br>2"x1 1/2"x.25 | 2<br>1 | 9'-5"<br>[illegible] 1/2" | 5'-4 1/4" | DS | A242 | 1.14 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | — | — | — | CH R<br>CH L | A36<br>A36 | 10 ⊏ 30<br>10 ⊏ 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER (2 REQ'D) | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (FURNISH LOOSE) | CONNECTION ANGLE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | |
| | | 2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | | C32T19-L-5810 | 9v | A242 | 2"x1 1/2"x.31 | 3'-3" | 2'-6 1/4" | 8 | A242 | 1.14 | 2'-5 3/4" | — | — | — | — | A242 | 1.14 | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA-4 | A242 | 2"x1 1/2"x.37 | 4'-4" |

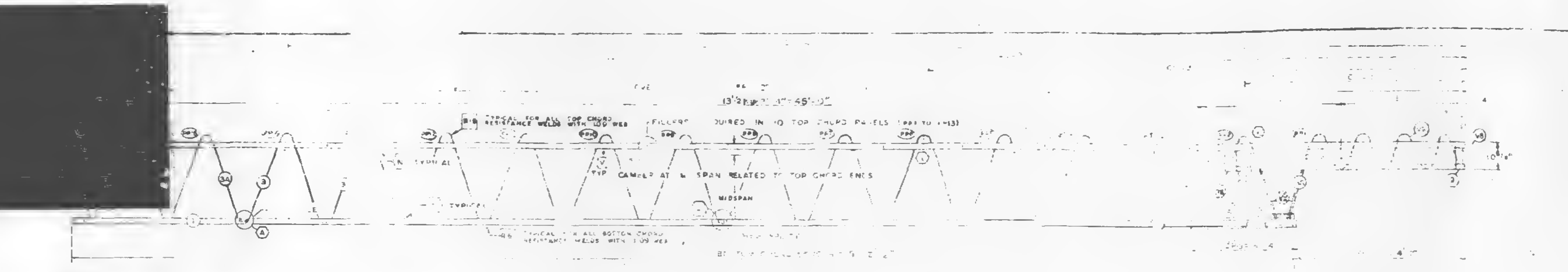
3

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T19-L 2 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

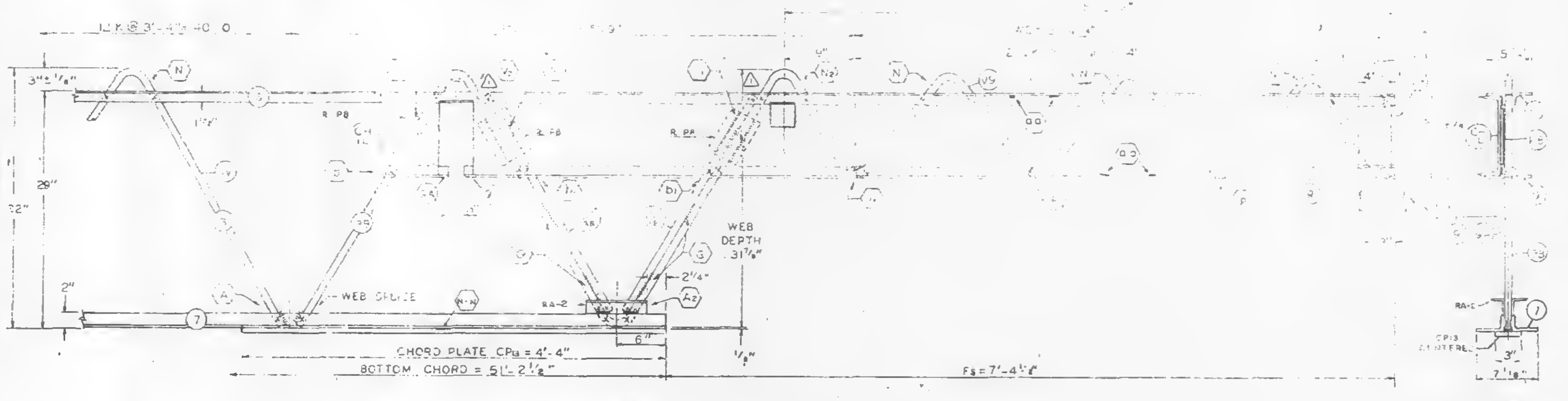
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-18
APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. DATE 1/13/69
DRAWN BY: gdc DATE OCT. 8, 1968
APPROVED FOR FABRICATION BY: [illegible] FOR FABRICATOR DATE
CHECKED BY: T.H.CHAMBERS DATE OCT. 10, 1968
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET ST 289

[redacted]

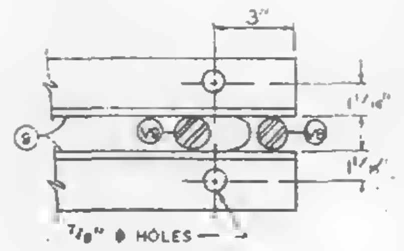

13'-2" ... 45'-0"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH ROD WEB
FILLERS REQUIRED IN 10 TOP CHORD PANELS
TYP. CAMBER AT ℄ SPAN RELATED TO TOP CHORD ENDS
MIDSPAN
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH ROD WEB
3A
3
A
10 ½"

EL END CORE

TRUSS ELEVATION



Es END (COLUMN)



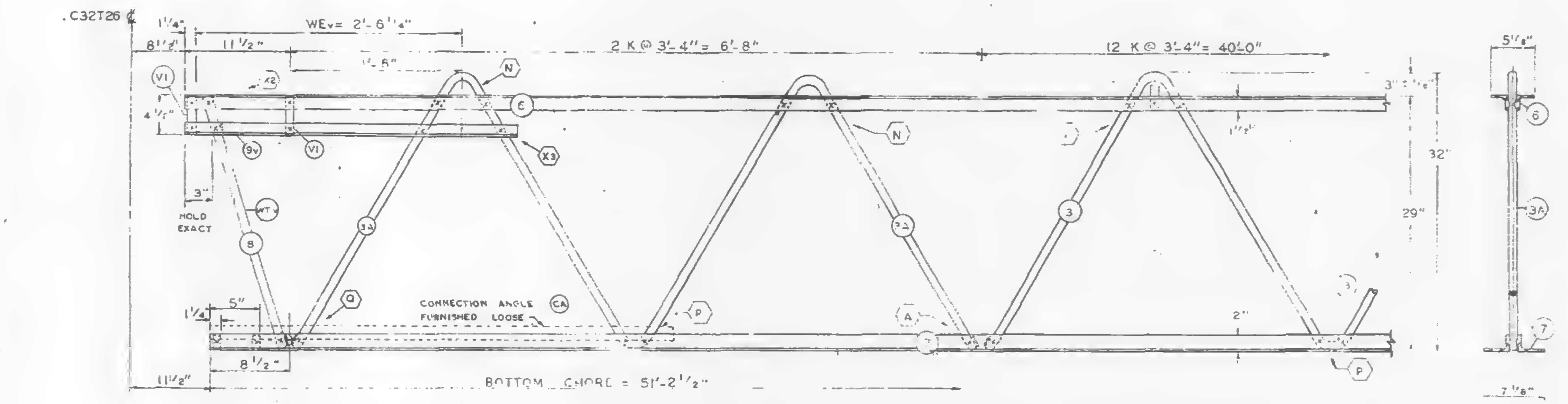
SECTION A-A

ALL ... WELDED (X). ... SHADED AREAS ... WEB SPLICES. ... INDICATE WELD DETAIL, ie., Ⓐ. ... NUMBERS IN SQUARES INDICATE ... STRENGTH IDENTIFIED IN THE ... PROGRAM, ie., [RO]. ... DETAILS SHOWN ON SHEETS ST290, ST291, ST 292 & ST 293.
... DETAILS SHOWN ON SHEET ST 401.
... PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST295 FOR VI DETAIL.

... SHOWN FOR C32T19AL ... ARE APPLICABLE TO C32T19AR TRUSSES WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP HAND AS SHOWN.

FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29 | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVER-ALL LENGTH | 58'-10" | 3/8" |
| [illegible] | 3 8" | ± 1/4" |



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 10-31-68 | AS NOTED | LWH |

REF. DRWG.

| | |
|---|---|
| 7-AB1-18 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53 & 55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| SA-124 | 8-1-68 |
| 7-AB4-11 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED ...

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB W | | | | | FILLER ROD HOLES | | [illegible] | | | | [illegible] | | | | CHANNEL PLATES | | | | STIFFENING ANGLES 2 REQ'D | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | MK | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T19AL-5810 | 6 | A242 | 2"x1 ½"x31 | 58'-10" | 7 | A36 | 3"x2"x33" | 51'-2 ½" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 74'-9"<br>12'-5 1/2"<br>10'-7 5/8" | 12 K @ 3'-4" = 40'-4<br>2 K @ 3'-4" = 6'-8"<br>3.4 K @ 3'-4" = 5'-9" | 12 | 1.09 | — | — | — | — | 4 | 1.09 | 3" | [illegible] | A36 | 3 | 4"x2"x39 | [illegible] | 9A 2 | A36 | 3"x 2"x 33" | 7 ½" | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T19AL-5810 | 9<br>9A | A242<br>A242 | 2"x1 ½"x25"<br>2"x1 ½"x27" | 1<br>1 | 9'-5<br>6 ½" | 5'-4 ¼" | DS 1b | A242 | 1.14 | 2'-6 ¾" | CP 13 | A36 | 3"x.25" | 4'-4" | A242 | 1.14 | 10 ½" | A242 | 1.14 | 8'-3 ⅞" | — | — | — | CHR<br>CHRL | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 ½" | 22'-10 ½" | 36'-2 ½" | 49'-6 ½" | 7'-4 ½" |

CORE END

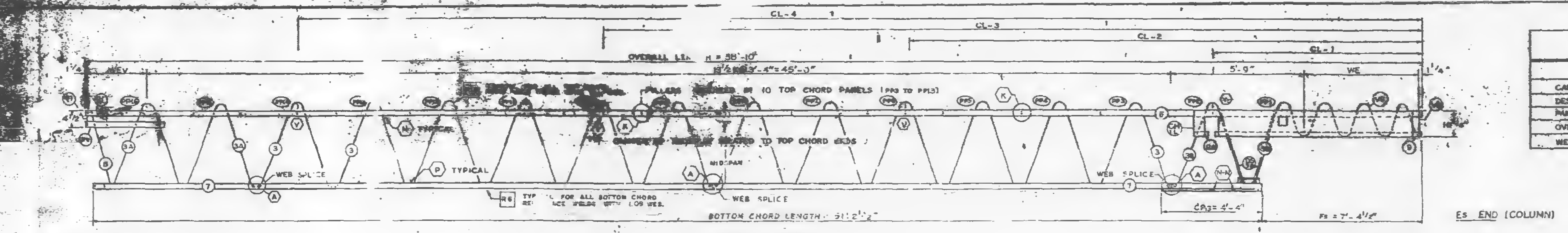
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL ST. STRUT | | | | VERTICAL ST. STRUT | | | | END STIFFENER (2 REQ'D) MK. V | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE (FURNISH LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T19AL-5810 | 9v | A242 | 2"x1 ½"x31 | 3' | 2'-6 ¼" | 8 | A242 | 1.14 | 2'-5 ¾" | — | — | — | — | A242 | 1.14 | 4 ⅜ | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1 ½"x.37 | 4'-4" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

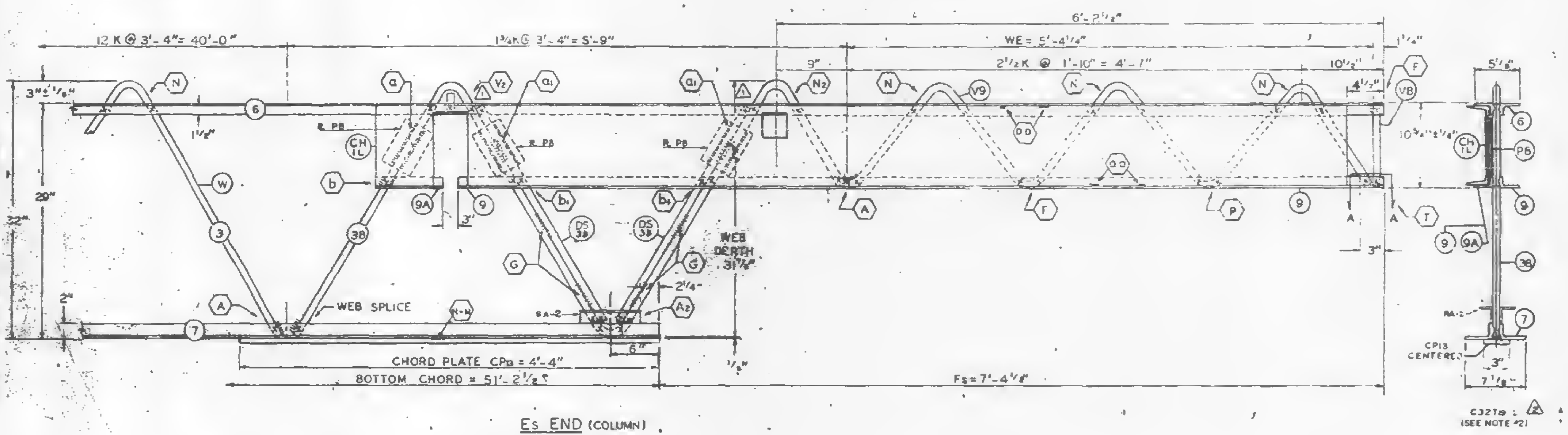
FLOOR TRUSS C32T19AL STEEL SIZE ... x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATED BY LACLEDE STEEL COMPANY

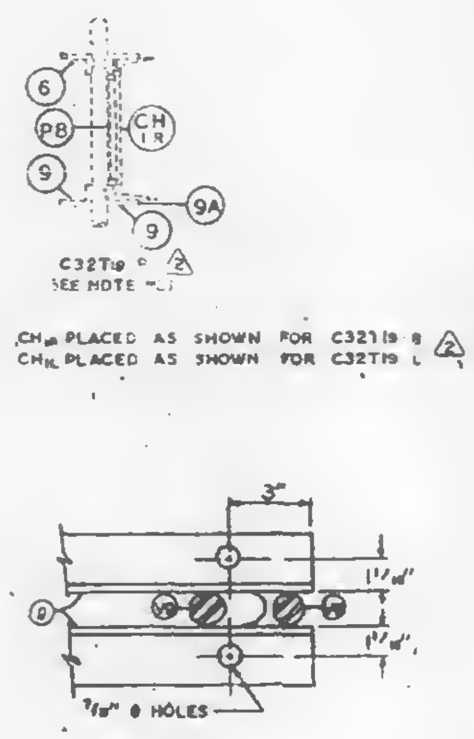
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-18 | PLATE |
| APPROVED FOR FABRICATION DATE BY ... 11/7/68 | DRAWN BY gdc DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION DATE BY ... FOR FABRICATION | CHECKED BY T.M. CHURA DATE OCT. 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | FABRICATION CONT. NO ... 221 | SHEET NO ST 219A |



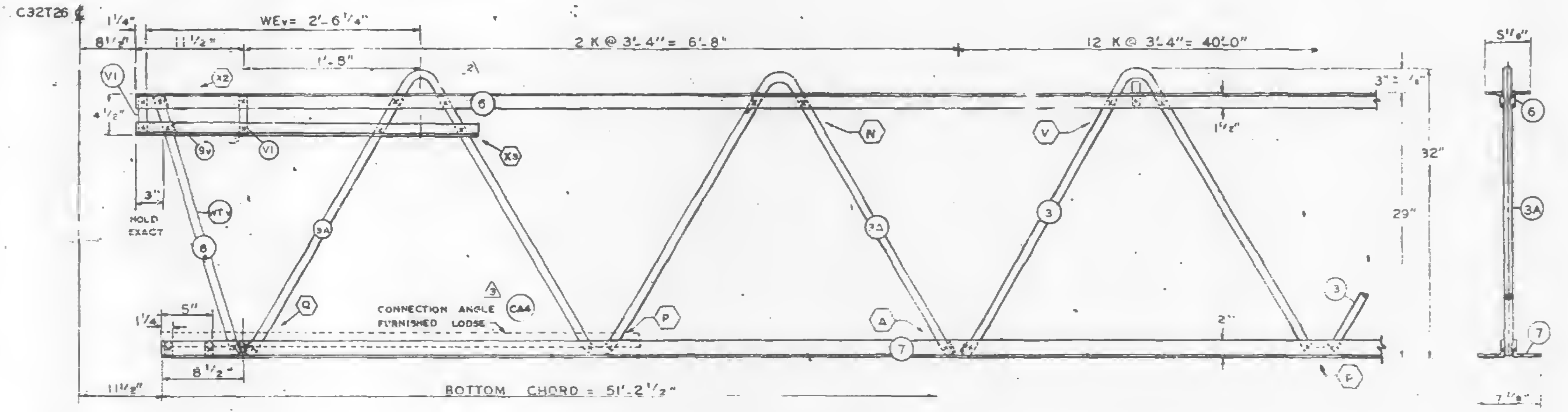
TRUSS ELEVATION



Es END (COLUMN)


C32T19 R (SEE NOTE #2)
CH-R PLACED AS SHOWN FOR C32T19 R
CH-L PLACED AS SHOWN FOR C32T19 L
3"
1⅛"
⅞" Ø HOLES

SECTION A-A



EL END (CORE)

| FABRICATION REQUIREMEN | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16 | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL K | 3'-4" | [illegible] |
| OVERALL LENGTH | 58'-10" | [illegible] |
| WEB DEPTH | 9" | [illegible] 4" |

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL. i.e. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R9].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST 292 & ST 293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T19-L TRUSSES ARE APPLICABLE TO C32T19-R TRUSSES (2) WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

| NO | DATE | REVISION |
|---|---|---|
| 3 | 12-3-68 | AS NOTED |
| 2 | 11-7-68 | AS NOTED |
| 1 | 10-31-68 | AS NOTED |

(3) REF. DRWG.

| | |
|---|---|
| 7-AB1-18 | 10-4-68 |
| 7-AB1-34 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB4-11 | 7-22-68 |
| 7-AB1-55 | 10-18-68 |

LACLEDE STEEL CO

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (2) | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | | MK | TYPE STEEL | SIZE | LENGTH | NO. | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T19-L-5810 | 6 | A242 | 2"x1½"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2½" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 109<br>114<br>114 | 74'-9"<br>12'-3 1/2"<br>10'-7 5/8" | 12 K @ 3'-4" = 40'-0"<br>2 K @ 3'-4" = 6'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 12 | 109 | — | — | — | — | — | 4 | 109 | 3" | P8 | A36 | 3 | 4"x2"x39 | 5½" | RA-2 | A36 | 3"x 2"x33" | 7½" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2) | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T19-L-5810 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x1½"x.25" | 2<br>1 | 9'-5"<br>8½" | 5'-4¼" | DS 3B | A242 | 114 | 2'-6¾" | CP 13 | A36 | 3"x.25" | 4'-4" | A242 | 114 | 10½" | A242 | 114 | 8'-3⅞" | — | — | — | CH-L<br>CH-R | A36<br>A36 | 10 C 30<br>10 C 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

CORE END

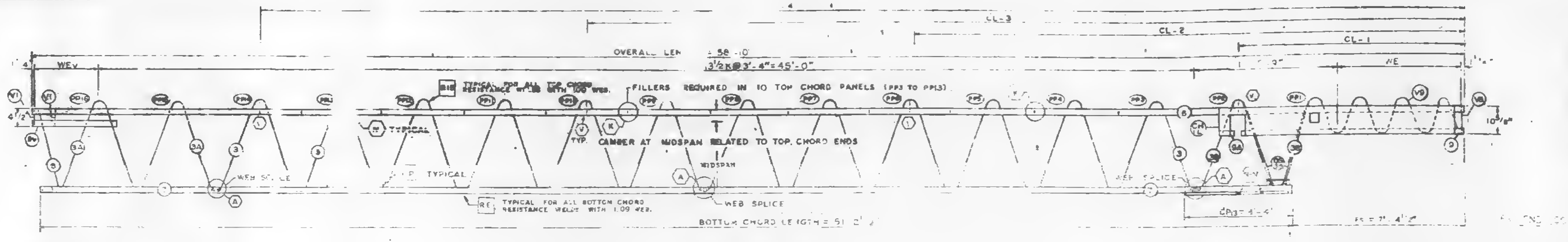
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER (2 REQ'D) MK. V1 | | | MK. V2 | | | MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE (FURNISH LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (2) | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LEN. H | TYPE STEEL | D. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T19-L-5810 | 9v | A242 | 2"x1½"x.31 | 3'-2" | 2'-6¼" | 8 | A242 | 114 | 2'-5¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA-4 (3) | A242 | 2"x1½"x.37 | 4'-4" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

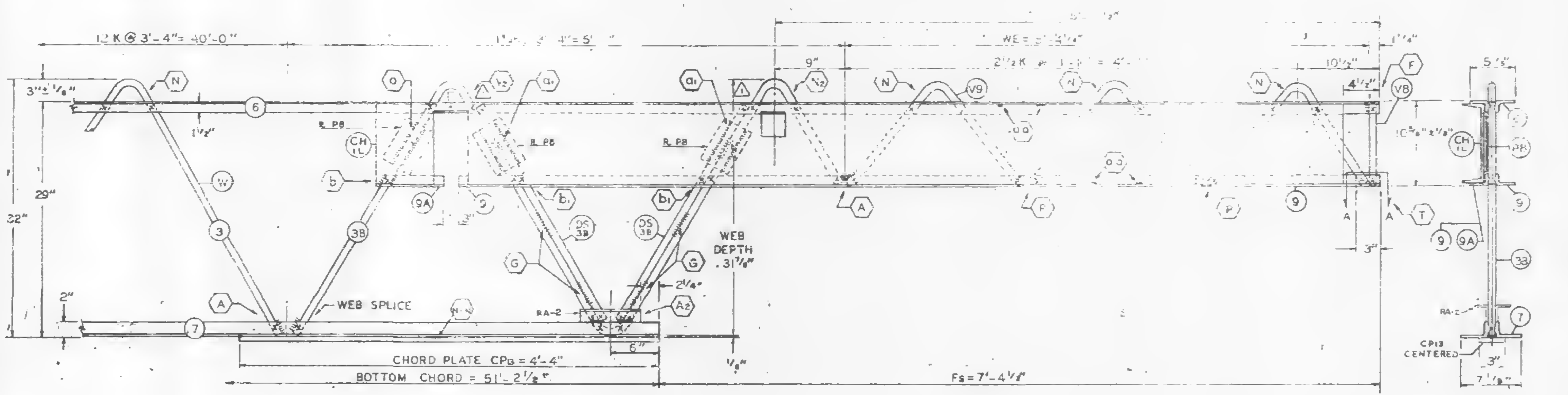
FLOOR TRUSS C32T19-L (2) (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

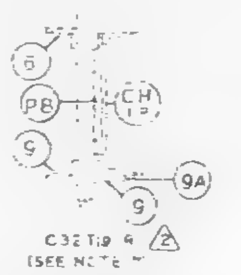
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-18 | PLATE |
| APPROVED FOR FABRICATION BY James W... FOR P.O.N.Y.A. | DATE 12/9/68 | DRAWN BY gdc<br>DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY T.N. CHURA<br>DATE OCT 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A CARL WEBER | | FABRICATION CONT. NO. WTC 221 | SHEET ST 219 |


OVERALL LENGTH = 58'-10"
CL-3
CL-2
CL-1
WEv
WE
3 1/2 K @ 3'-4" = 45'-0"
FILLERS REQUIRED IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09 WEB.
TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB.
BOTTOM CHORD LENGTH = 51'-2 1/2"
CP13 = 4'-4"
10 1/8"
4 1/2"
EL END (CORE)
ES END (COLUMN)

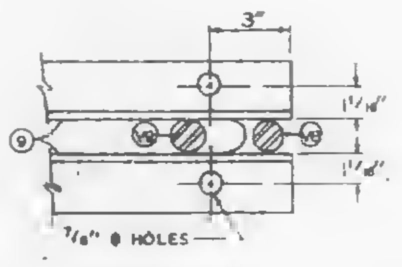
TRUSS ELEVATION



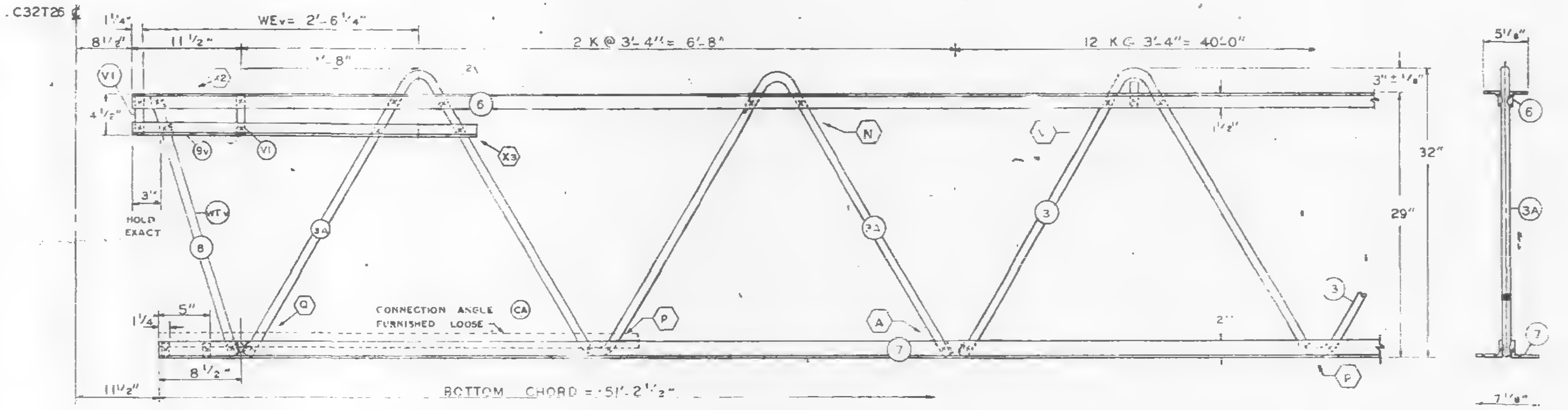
Es END (COLUMN)



CH PLACED AS SHOWN FOR C32T19 R
CH PLACED AS SHOWN FOR C32T19 L



SECTION A-A



BOTTOM CHORD = 51'-2 1/2"

EL END (CORE)

FABRICATION REQUIREMENT.

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3" |
| WEB DEPTH | 31 7 | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (X). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie., [R0]. ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST 292 & ST 293. ALL CHANNEL DETAILS SHOWN ON SHEET ST 407. CHORD PLATE DETAILS SHOWN ON SHEET ST 283. SEE SHEET ST295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T19-L TRUSSES ARE APPLICABLE TO C32T19-R TRUSSES ⚠2 WITH CHANNEL CH and BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 11-7-68 | AS NOTED | G.D.C. |
| 1 | 10-31-68 | AS NOTED | LWH |

⚠2 REF. DRWG.

| | |
|---|---|
| 7-A81-18 | 10-4-68 |
| 7-A81-54 | 10-4-68 |
| 7-A81-53 | 7-22-68 |
| 7-A83-2 | 1-3-68 |
| 7-A83-24 | 8-15-68 |
| 7-A84-17 & 172 | 10-4-68 |
| 5A-124 | 10-11-68 |
| 7-A84-11 | 7-22-68 |
| 7-A81-55 | 10-15-68 |

PAINT
LACLEDE ELECTROCOAT
REF. [illegible]

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/L HOLES | CHORD PLATE | | | | FILLER | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⚠2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | NO. | DIA | LENGTH | MK | TYPE STEEL | PCS | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T19-L-5810 | 6 | A242 | 2"x1 1/2"x.31 | 58'-10" | 7 | A36 | 3"x2"x.33" | 51'-2 1/2" | 3<br>3A<br>3B | A36<br>A242<br>A242 | 1.09<br>1.14<br>1.14 | 74'-9"<br>12'-5 1/2"<br>10'-7 5/8" | 12 K @ 3'-4" = 40'-4<br>2 K @ 3'-4" = 6'-8"<br>3 4K @ 3'-4" = 5'-9" | 12 | 1.09" | — | — | — | — | — | 4 | 1.09 | 3" | PB | A36 | 3 | 4 1/2"x.39 | 5'-1 1/2" | RA-2 | A36 | 3 1/2"x2"x.33" | 7 1/2" | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ⚠2 | MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T19-L-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8'-1 1/2" | 5'-4 1/2" | Ch | A242 | 1.14 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8-3 7/8" | — | — | — | CH L<br>CH R | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL ST. STRUT | | | | VERTICAL ST. STRUT | | | | END STIFFENER (2 REQ'D) MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE (I FURNISH LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ⚠2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T19-L-5810 | 9v | A242 | 2"x1 1/2"x.31 | 3'-2" | 2'-6 1/4" | 8 | A242 | 1.14 | 2'-5 3/4" | -- | — | — | — | A242 | 1.14 | 4 3/8" | — | — | — | — | — | -- | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1 1/2"x.37 | 4'-4" |

CHECK DIMENSION FOR TRUSS FAB.

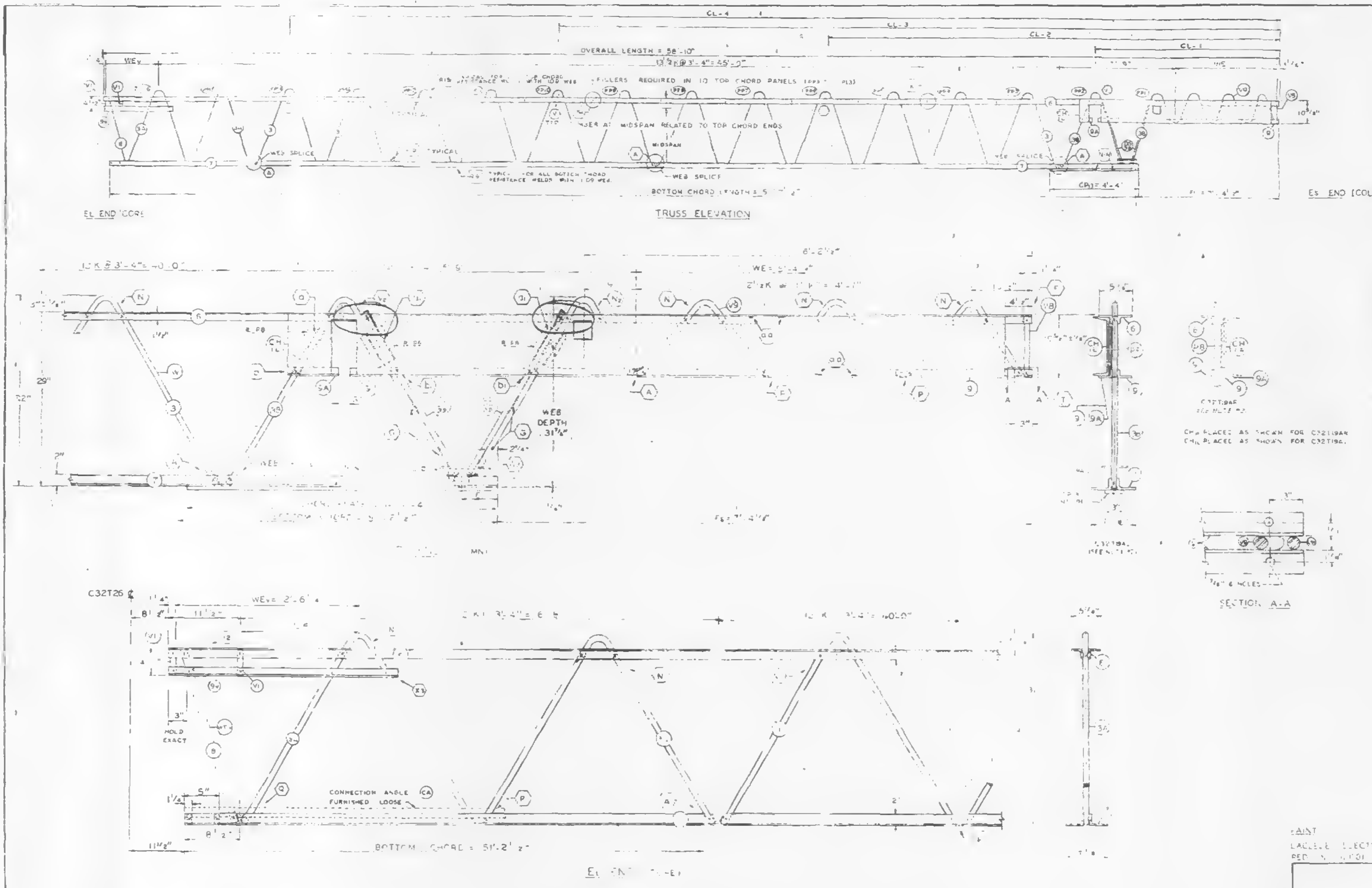
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER [illegible]
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T19-L ⚠2 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATED BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-18 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. BY | DATE 11/18/68 | DRAWN BY gdc DATE OCT. 5, 1968 | |
| APPROVED FOR FABRICATION FOR FABRICATOR BY | DATE | CHECKED BY T.N. CHURA DATE OCT 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A CARL WEBER | | FABRICATION CONT. NO W.T.C. 221 | SHEET NO. ST 219 L ⚠2 |



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL PT. | [illegible] | [illegible] |
| OVERALL LENGTH | 58'-10" | [illegible] |
| WEB DEPTH | [illegible] | [illegible] |

ALL PANEL POINTS RESISTANCE WELDED [illegible] ARC WELDS INDICATED AT SHAPE [illegible] AND AT BOTTOM CHORD WEB SPLICES [illegible] LETTERS IN HEXAGON INDICATE WELD DETAIL [illegible] LETTERS AND NUMBERS IN SQUARES INDICATE [illegible] RESISTANCE WELD STRENGTH [illegible] THE QUALITY CONTROL PROGRAM [illegible] ALL WELD DETAILS SHOWN [illegible] ST 29[illegible] ST 292 & ST 293.
ALL CHANNEL DETAILS SHOWN [illegible] CHORD PLATE [illegible] SHOWN [illegible]
SEE SHEET ST 295 FOR VI DETAIL

NOTE

DETAIL & ELEVATIONS SHOWN FOR C32T19AL [illegible] APPLICABLE TO C32T19AR TRUSSES WITH CHANNEL CH1 AND BEARING ANGLE 9A PLACED ON OPP HAND AS SHOWN.

CH1 PLACED AS SHOWN FOR C32T19AR
CH1 PLACED AS SHOWN FOR C32T19AL

| | | | | MAIN WEB | | | | | FILLERS | "M" CIRCLES | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | LENGTH | TYPE STEEL | SIZE | LENGTH | MK | NO. | DIA. | | | | | | | |
| C32T19AL-58.0 | [illegible] | A242 | [illegible] | [illegible] | A36 | [illegible] | [illegible] | [illegible] | 2 | C97 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | A36 | [illegible] |

| Es | TRUSS DESIGNATION | BEARING ANGLE | | | | | WE | | | | | CHORD PLATE | | | END STIFFENER | | | | | | | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | |
| END | | MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T19AL-58.0 | 9<br>9A | A242 | [illegible] | [illegible] | [illegible] | | [illegible] | A242 | [illegible] | [illegible] | A36 | 3"x.25" | 4'-4" | A242 | 1.14 | 10'-1½" | A242 | 1.14 | 8'-3⅞" | — | — | — | CH1<br>CH2 | A36<br>A36 | 10 30<br>[illegible] | [illegible] |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

| E1 | TRUSS DESIGNATION | BEARING ANGLE | | | | AE | DIAGONAL | | | | VERTICAL ST. STRUT | | | | END STIFFENER (2 REQ'D) | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE (FURNISH LOOSE) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | |
| END | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T19AL-58.0 | 9A | A242 | 2"x1" [illegible] | 3'-[illegible] | [illegible] | 8 | A242 | 1.[illegible] | 2'-5¾" | — | — | — | — | A242 | 1.14 | 4'-3" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1½"x.37 | 4'-4" |

REF. DRWG.
7-AB1-18 — 8-15-88
7-AB1-24 — 8-15-88
7-AB1-53 & 55 — 7-24-88
7-AB2-2 — [illegible]
7-AB3-24 — 8-15-68
7-AB4-17 & 17A — [illegible]
[illegible]
7-AB4-31 — 7-22-88

X

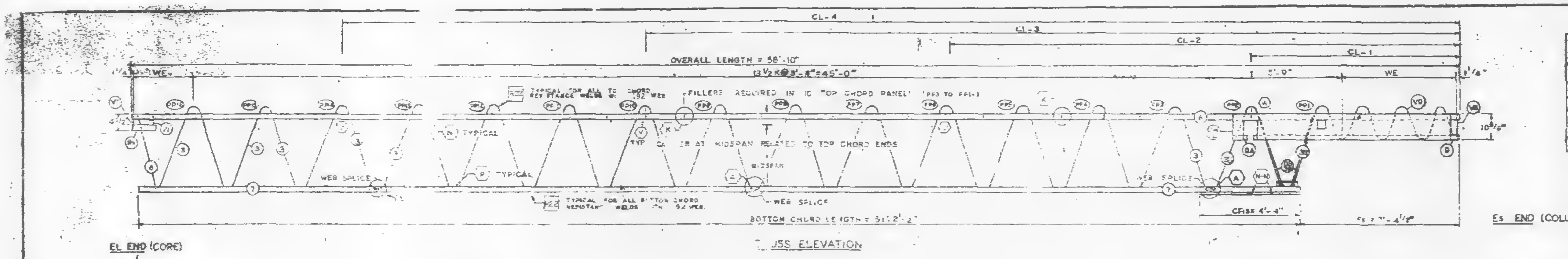
10/29/68 SK

PAINT
LACLEDE ELECTRO COAT
RED [illegible]

FLUSH TRUSS DETAILS
FOR
[illegible]

FLUSH TRUSS C32T19AL [illegible]
WORLD TRADE CENTER TOWERS A & B

FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN [illegible] 7-AB1-18
APPROVED FOR FABRICATION DATE BY [illegible]
DRAWN BY [illegible]
DATE OCT [illegible]
APPROVED FOR FABRICATION DATE BY FOR FABRICATOR
CHECKED [illegible]
DATE OCT [illegible]
DETAILED BY [illegible] WEBER
[illegible] 2[illegible]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
13 1/2 K @ 3'-4" = 45'-0"
WE
5'-9"
TYPICAL FOR ALL TO CHORD RESISTANCE WELDS W/ .92 WEB
FILLERS REQUIRED IN 10 TOP CHORD PANEL (PP3 TO PP1)
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS W/ .92 WEB
BOTTOM CHORD LENGTH = 51'-2 1/2"
CP13 = 4'-4"
Fs = 7'-4 1/2"
10 3/8"

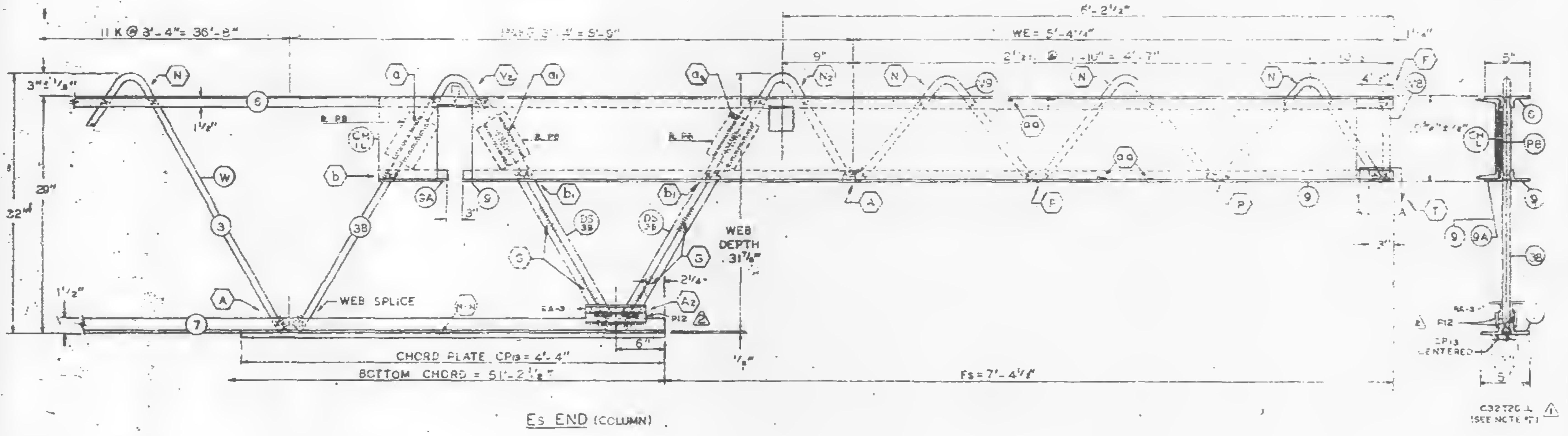
EL END (CORE)

TRUSS ELEVATION

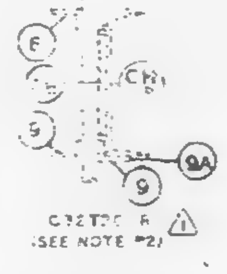
Es END (COLUMN)

FABRICATION REQUIREMENTS

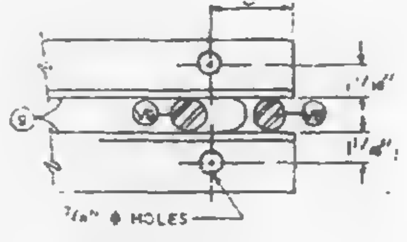
| | D | T |
|---|---|---|
| CAMBER AT MIDSPAN | 1/16" | ± 3/ |
| DESIGN DEPTH | 29" | ± 1/ |
| PANEL K | 3'-4" | 1/4" |
| OVERALL LENG | 56' | ± 3/ |
| WEB DEPTH | 31 7/8" | ± 1/4" |



Es END (COLUMN)



CH PLACED AS SHOWN FOR C32T20 R
CH PLACED AS SHOWN FOR C32T20 L

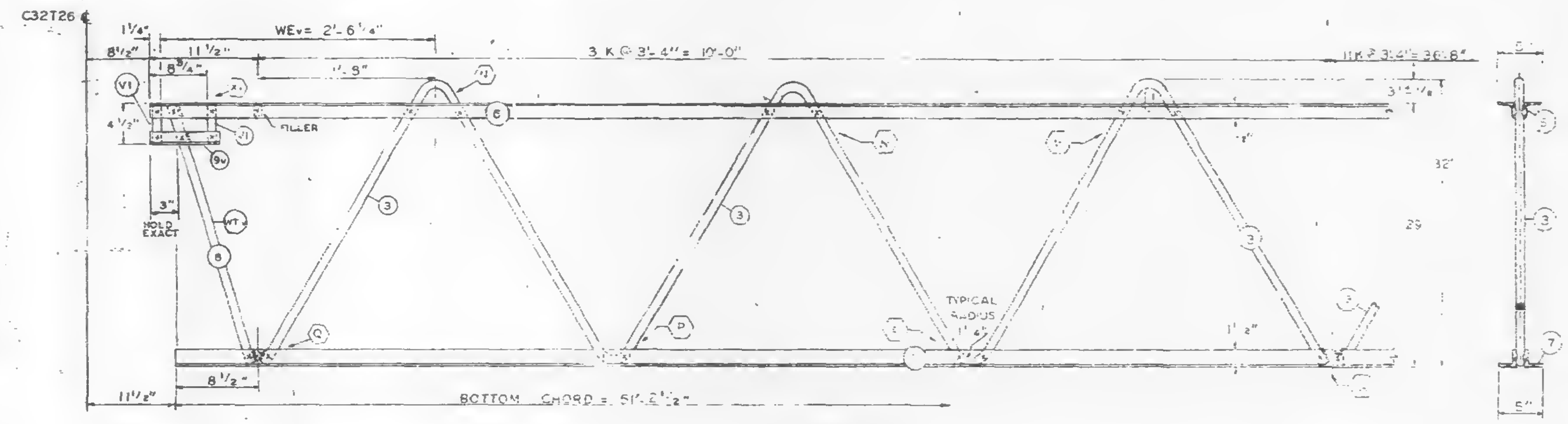


SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED. (X-1).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., A
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie.,
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 292 AND ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 285.
SEE SHEET ST 295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T2C L ⚠1
TRUSSES ARE APPLICABLE TO C32T2C R TRUSSES
WITH CHANNEL CH1 AND BEARING ANGLE 9A
PLACED ON OPP. HAND AS SHOWN.



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠2 | 12-12-68 | SPECIAL PLATE P12 | D.C.C. |
| ⚠1 | 11-7-68 | AS NOTED | D.C.C. |

⚠2 REF. DRWG.

| | |
|---|---|
| 7-AB1-19 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-8-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB8-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-(3) | 7-22-68 |
| 7-AB1-58 | 10-15-65 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

⚠2

| TRUSS DESIGNATION ⚠1 | TOP CHORD TWO ANGLES MK | TOP CHORD TYPE STEEL | TOP CHORD CHORD SIZE | TOP CHORD LENGTH | BOTTOM CHORD TWO ANGLES MK | BOTTOM CHORD TYPE STEEL | BOTTOM CHORD CHORD SIZE | BOTTOM CHORD LENGTH | MAIN WEB "W" MK | MAIN WEB TYPE STEEL | MAIN WEB DIA | MAIN WEB LENGTH | MAIN WEB NO. OF K | FILLER NO. | FILLER DIA. | "V" C/C HOLES | CHORD PLATE MK | CHORD PLATE TYPE STEEL | CHORD PLATE SIZE | CHORD PLATE LENGTH | CONNECTION FILLERS NO. DIA | CONNECTION FILLERS LENGTH | CHANNEL PLATES MK | CHANNEL PLATES TYPE STEEL | CHANNEL PLATES PCS | CHANNEL PLATES SIZE | CHANNEL PLATES LENGTH | REINFORCING ANGLES MK | REINFORCING ANGLES TYPE STEEL | REINFORCING ANGLES ANGLE SIZE | REINFORCING ANGLES LENGTH | SPECIAL PLATES MK | SPECIAL PLATES TYPE STEEL | SPECIAL PLATES SIZE | SPECIAL PLATES LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T20 L-5810 | 6 | A242 | 2"x1 1/2"x.25" | 58'-10" | 7 | A242 | 2"x1 1/2"x.25" | 51'-2 1/2" | 3<br>38 | A242<br>A242 | .92<br>.92 | 87'-2 1/2"<br>10'-7 5/8" | 14 K @ 3'-4" = 46'-8"<br>3 4K @ 3'-4" = 5'-8" | 11 | .92 | — | — | — | — | — | 4 .92 | 3" | P6 | A36 | 3 | 4 2"x39 | 5 2" | FA2 | A242 | 2"x1 1/2"x.25" | 7 1/2" | P12 | A36 | 1"x 3/8" | 7 1/8" |

COLUMN END

| Es END | TRUSS DESIGNATION ⚠1 | BEARING ANGLES MK | BEARING ANGLES TYPE STEEL | BEARING ANGLES CHORD SIZE | BEARING ANGLES PCS. | BEARING ANGLES LENGTH | WE | DOUBLE STRUT MK | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA | DOUBLE STRUT LENGTH (2 REQ'D) | CHORD PLATE MK | CHORD PLATE TYPE STEEL | CHORD PLATE SIZE | CHORD PLATE LENGTH | END STIFFENER MK. V9 TYPE STEEL | MK. V9 DIA. | MK. V9 LENGTH | 9 TYPE STEEL | 9 DIA | 9 LENGTH | MK. V10 TYPE STEEL | MK. V10 DIA. | MK. V10 LENGTH | CHANNEL MK | CHANNEL TYPE STEEL | CHANNEL CHANNEL SIZE | CHANNEL LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T20 L-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | .92 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 1/2" | A242 | .92 | 5'-3 7/8" | — | — | — | CH<br>CH | A36<br>A36 | 10 [ 30<br>10 [ 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

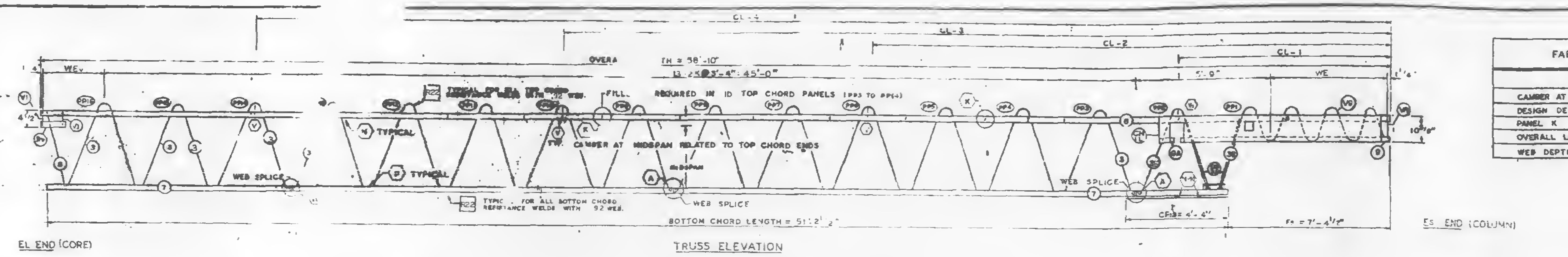
| EL END | TRUSS DESIGNATION ⚠1 | BEARING ANGLES MK | BEARING ANGLES TYPE STEEL | BEARING ANGLES CHORD SIZE | BEARING ANGLES LENGTH | WEv | DIAGONAL "Tv" STRUT MK | DIAGONAL TYPE STEEL | DIAGONAL DIA. | DIAGONAL LENGTH | VERTICAL "STv" STRUT MK | VERTICAL TYPE STEEL | VERTICAL DIA. | VERTICAL LENGTH | END STIFFENER (2 REQ'D) MK. V1 TYPE STEEL | MK. V1 DIA. | MK. V1 LENGTH | MK. V2 TYPE STEEL | MK. V2 DIA. | MK. V2 LENGTH | MK. V4 TYPE STEEL | MK. V4 DIA | MK. V4 LENGTH | DOUBLE STRUT MK | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA. | DOUBLE STRUT LENGTH | DOUBLE STRUT MK. | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA. | DOUBLE STRUT LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T20 L-5810 | 9v | A242 | 2"x1 1/2"x.25" | 10" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | — | — | — | — | A242 | .92 | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T20-L ⚠1 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-19 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. | DATE 1/13/69 | DRAWN BY: DCC DATE: OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: LACLEDE STEEL CO. FOR FABRICATOR | DATE | CHECKED BY: T.H. CHURA DATE OCT. 10, 1968 | IN CHARGE OF PROD. SEC. |
| DETAILED BY: A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 220 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-10"
13 K @ 3'-4" = 45'-0"
WE
FILL. REQUIRED IN ID TOP CHORD PANELS
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .92 WEB.
BOTTOM CHORD LENGTH = 51'-2 1/2"
CP13 = 4'-4"
Fs = 7'-4 1/2"
EL END (CORE)
Es END (COLUMN)

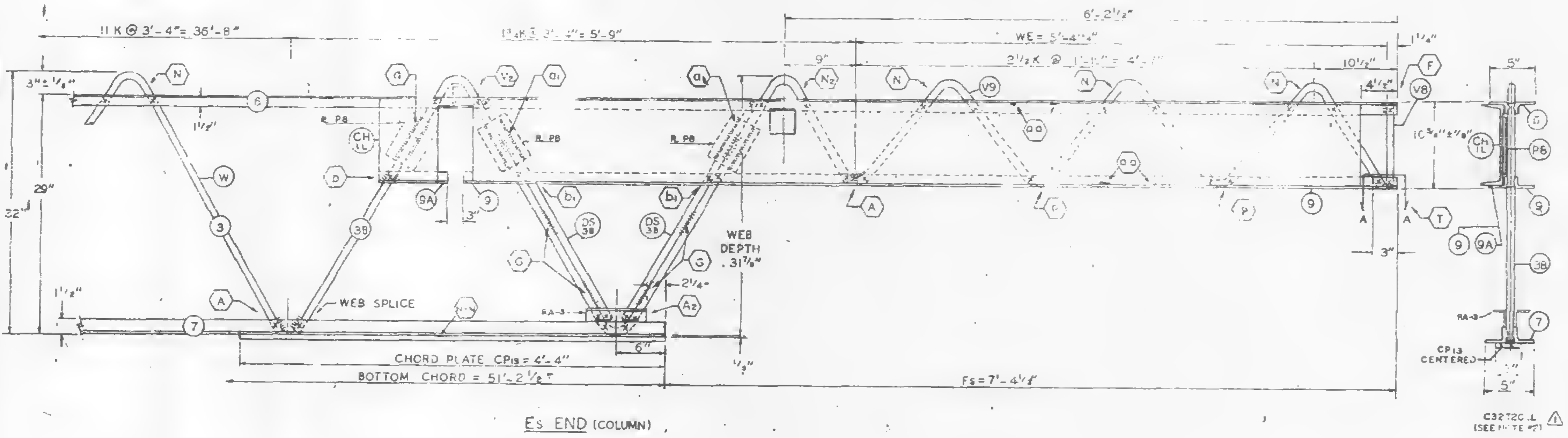
TRUSS ELEVATION

| FABRICATION REQUIRED | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 11/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

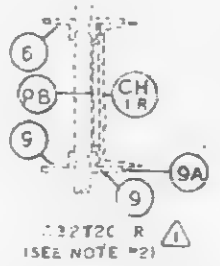
ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R0.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST 292 AND ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST295 FOR VI DETAIL.

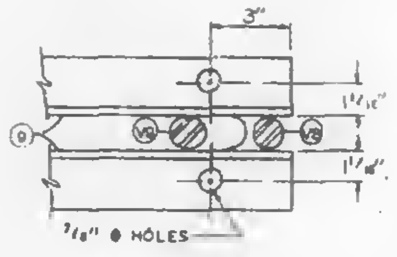
NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T20 L ⚠1 TRUSSES ARE APPLICABLE TO C32T20 R TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

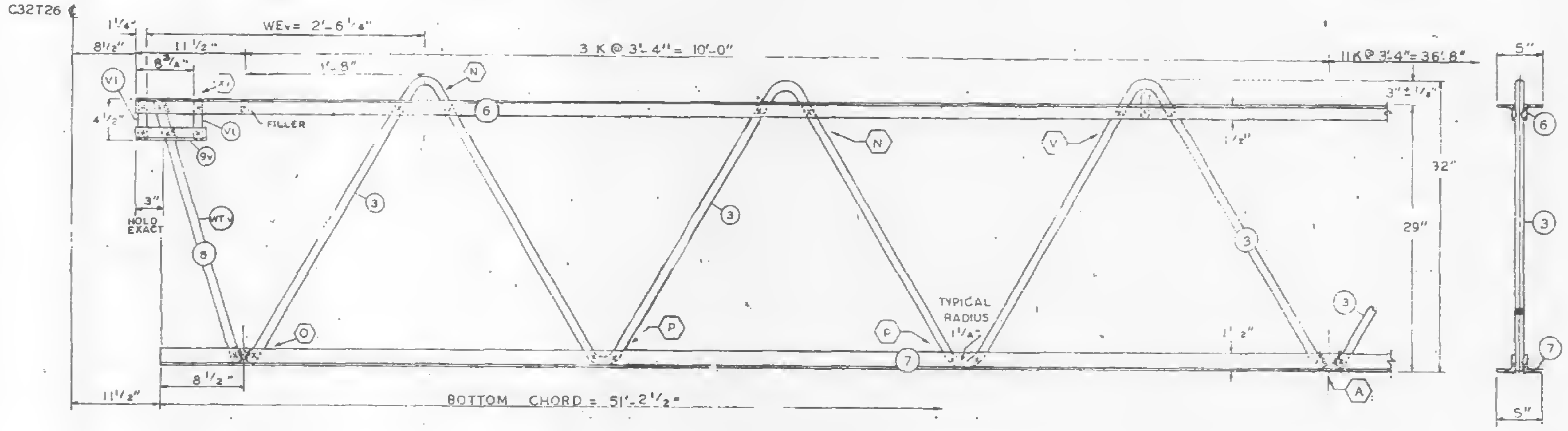


Es END (COLUMN)


C32T20 R (SEE NOTE #2)
9A PLACED AS SHOWN FOR C32T20 R
CH1 PLACED AS SHOWN FOR C32T20 L



SECTION A-A



EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 11-7-68 | AS NOTED | G.D.C. |

⚠1 REF. DRWG.

| | |
|---|---|
| 7-AB1-19 | 10-4-68 |
| 7-AB1-54 | 10-4-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB1-13.1 | 7-22-68 |
| 7-AB1-55 | 10-15-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ⚠1 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | MK. | DIA. | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | | |
| C32T20 L-5810 | 6 | A242 | 2"x1 1/2"x.25" | 58'-10" | 7 | A242 | 2"x1 1/2"x.25" | 51'-2 1/2" | 3<br>3B | A242<br>A242 | .92<br>.92 | 97'-2 1/2"<br>10'-7 3/8" | 14 K @ 3'-4" = 46'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 11 | .92" | — | — | — | — | — | 4 | .92 | 3" | P8 | A36 | 3 | 4 1/2"x39 | 5 1/2" | RA-3 | A242 | 2"x1 1/2"x.25 | 7 1/2" | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ⚠1 | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T20 L-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-6"<br>8 1/2" | 5'-4 1/4" | DS | A242 | .92 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 7/8" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

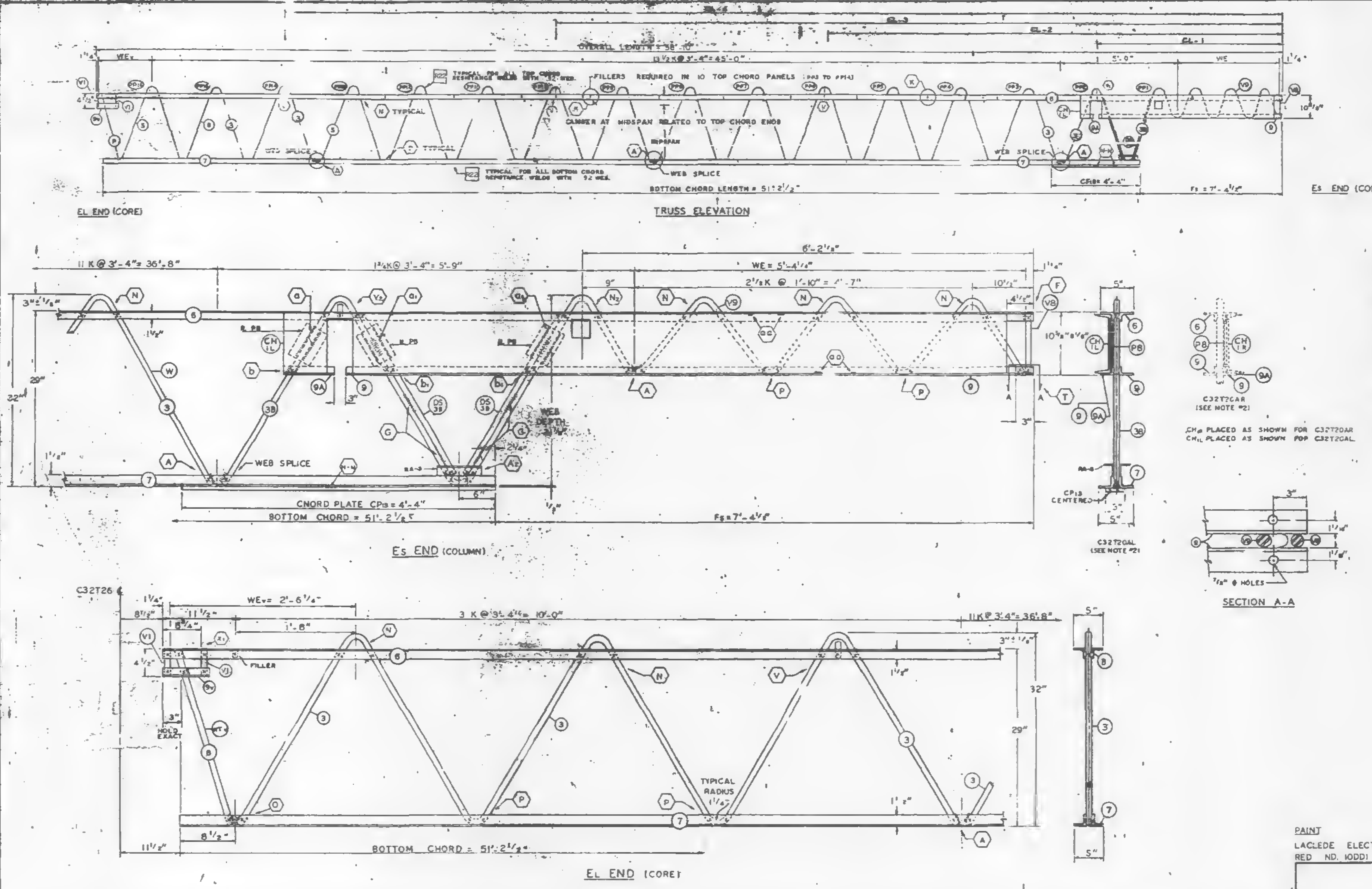
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | W.E. | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER (2 REQ'D) MK. V1 | | | END STIFFENER (2 REQ'D) MK. V2 | | | END STIFFENER (2 REQ'D) MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ⚠1 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T20 L-5810 | 9V | A242 | 2"x1 1/2"x.25 | 10" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | - | — | — | — | A242 | .92 | 4 3/8" | — | — | — | — | — | — | - | - | - | - | — | — | — | — |

PAINT
LACLEDE ELECTROCOAT
RED NO. 1000

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T20 L ⚠1 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-19 | PLATE |
| APPROVED FOR FABRICATION BY: [illegible] FOR P.O.N.Y.A. | DATE 11/12/68 | DRAWN BY: gdc<br>DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE OCT. 10, 1968 | IN CHARGE OF PROD. DEPT. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ⚠1 ST 220 |



## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 11/16" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED. (x).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (▬).
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., ▢.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 AND ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST407.
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
SEE SHEET ST295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T20AL TRUSSES ARE APPLICABLE TO C32T20AR TRUSSES WITH CHANNEL CN18 AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF. DRWG.

| | |
|---|---|
| 7-AB1-19 | 8-15-68 |
| 7-AB1-34 | 8-15-68 |
| 7-AB1-53 & 56 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| SA-124 | 8-1-68 |
| 7-AB1-13.1 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | CONNECTION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO OF K | NO. | DIA. | | MK | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | | |
| C32T20AL-5810 | 6 | A242 | 2"x1 1/2"x.25" | 58'-10" | 7 | A242 | 2"x1 1/2"x.25" | 51'-2 1/2" | 3<br>3B | A242<br>A242 | .92<br>.92 | [illegible]<br>[illegible] | 14 K @ 3'-4" = 46'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 11 | .92 | — | — | — | — | — | 4 | .92 | 3" | P6 | A36 | 3 | 4"x2"x.38 | 5 1/2" | RA9 | A242 | 2"x1 1/2"x.25 | 7 1/8" | | |

COLUMN END

| Ep END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T20AL-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 5'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | .92 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 7/8" | — | — | — | [illegible]<br>[illegible] | A36<br>A36 | 10C 30<br>10C 30 | 10'-0"<br>10'-0" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER (2 REQ'D) MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH |
| | C32T20AL-5810 | 9v | A242 | 2"x1 1/2"x.25 | 10" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | — | — | — | — | A242 | .92 | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

CHECK DIMENSION FOR TRUSS FAB.

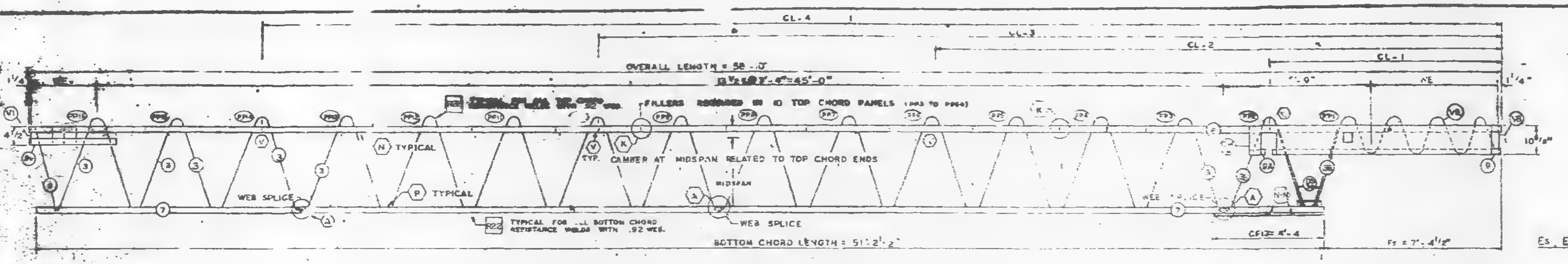
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

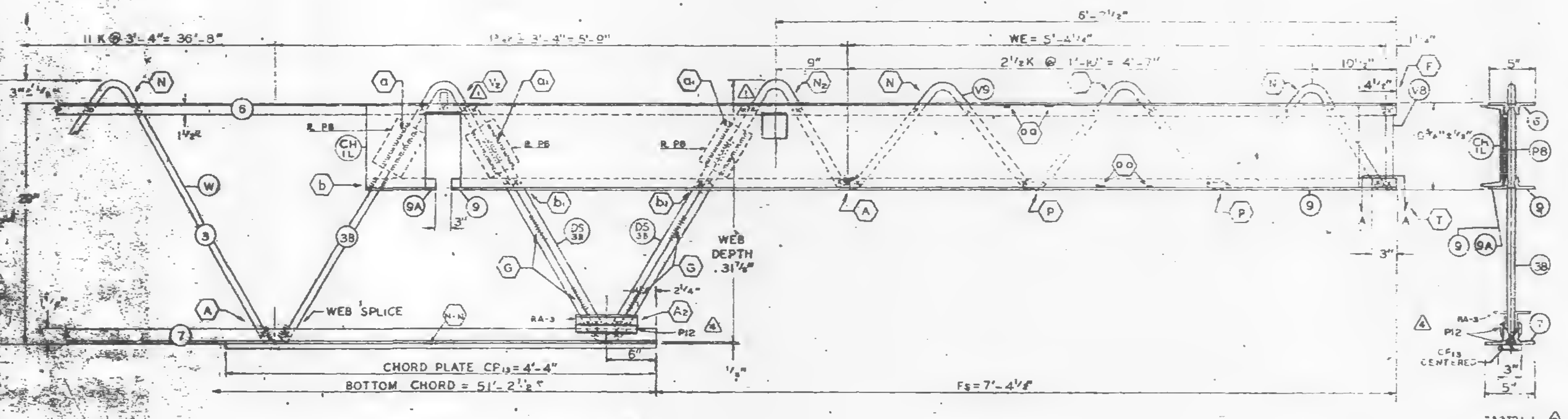
FLOOR TRUSS C32T20AL (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

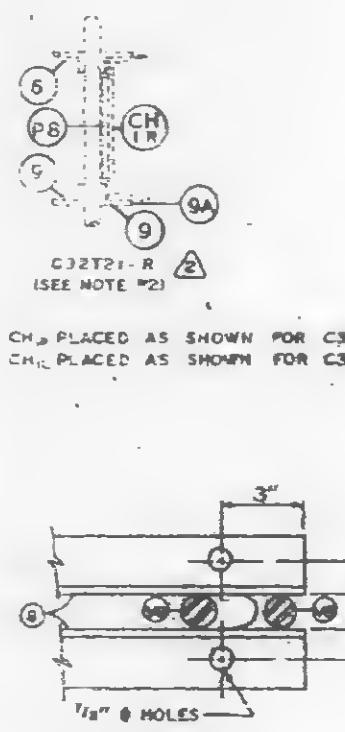
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-19 | PLATE |
| APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A. | DATE 10/29/68 | DRAWN BY: gdc<br>DATE OCT. 8, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE OCT. 10, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A CARL WEBER | | FABRICATION CONT. NO. WTC 221 | SHEET NO. ST 220AL |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 58'-0"
13 1/2 K @ 3'-4" = 45'-0"
FILLERS REQUIRED IN 10 TOP CHORD PANELS
N TYPICAL
P TYPICAL
TYP. CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .92 WEB.
BOTTOM CHORD LENGTH = 51'-2 1/2"
CF13 = 4'-4
Fs = 7'-4 1/2"
EL END (CORE)
Es END (COLUMN)

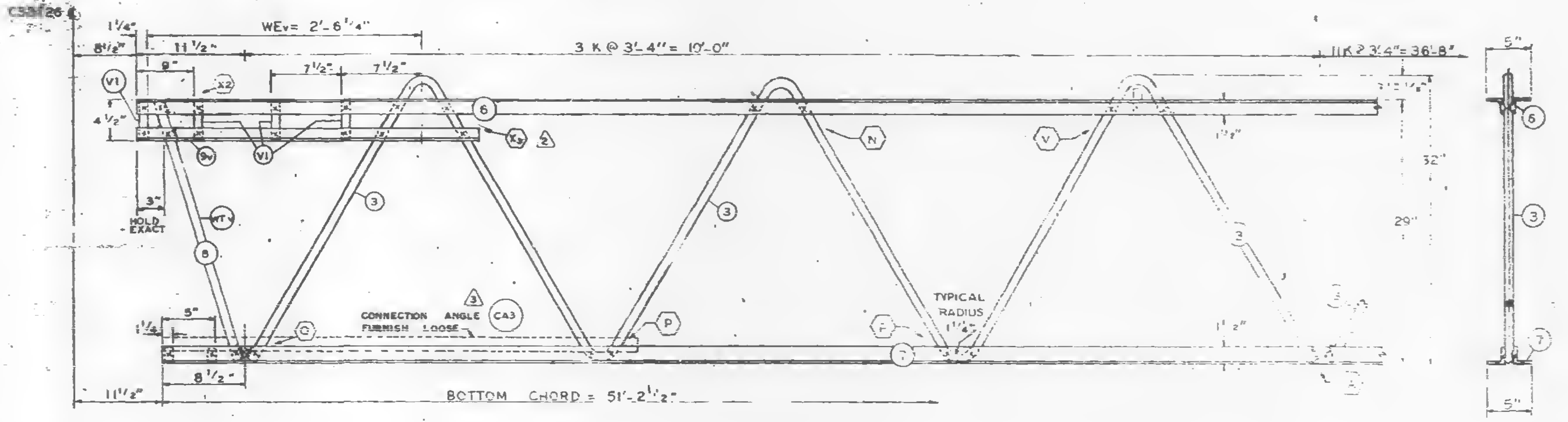
TRUSS ELEVATION



Es END (COLUMN)


C32T21-R (SEE NOTE #2)
CHR PLACED AS SHOWN FOR C32T21-R
CHL PLACED AS SHOWN FOR C32T21-L
C32T21-L (SEE NOTE #2)
3"
1 1/2"
1/2" ⌀ HOLES

SECTION A-A



EL END (CORE)

| FABRICATION [illegible] | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| PANEL K | 4" | ± 1/[illegible] |
| OVERALL LENGTH | 58'-10" | ± 3/[illegible] |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES [illegible]
LETTERS IN HEXAGON INDICATE WELD [illegible]
LETTERS AND NUMBERS IN SQUARES [illegible]
RESISTANCE WELD STRENGTH [illegible]
QUALITY CONTROL PROGRAM. [illegible]
ALL WELD DETAILS SHOWN ON [illegible]
ST 292 AND ST 293.
ALL CHANNEL DETAILS SHOWN ON [illegible]
CHORD PLATE DETAILS SHOWN ON [illegible]
SEE SHEET ST 295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T21-L [illegible] TRUSSES ARE APPLICABLE TO C32T21-R TRUSSES [illegible] WITH CHANNEL CHR AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.

| NO | DATE | REVISION | |
|---|---|---|---|
| 4 | 12-26-68 | AS NOTED | [illegible] |
| 3 | 12-3-68 | AS NOTED | [illegible] |
| 2 | 11-7-68 | AS NOTED | [illegible] |
| 1 | 10-31-68 | AS NOTED | [illegible] |

3 REF. DRWG.

| | |
|---|---|
| 7-AB1-20 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-58 | 7-29-68 |
| 7-AB2-2 | 1-3-68 |
| 7-AB1-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB4-1L2 | 7-26-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER "M" [illegible]HOLES | | CHORD PLATE [illegible] | | | | CHANNEL PLATES [illegible] | REINFORCING ANGLES 4 | | | | SPECIAL PLATES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | MK. | TYPE STEEL | SIZE | LENGTH | [illegible] | MK. | TYPE STEEL | ANGLE SIZE | (2 REQ'D) LENGTH | MK. | TYPE STEEL | SIZE | (2 REQ'D) LENGTH |
| C32T21-L-5810 | 6 | A242 | 2"x1 1/2"x .25" | 58'-10" | 7 | A242 | 2"x1 1/2"x.25" | 51'-2 1/2" | 3<br>3B | A242<br>A242 | .92<br>.92 | 37'-2 1/2"<br>10'-7 5/8" | 14 K @ 3'-4" = 46'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 12 | .92" | — | — | — | — | [illegible] | RA3 | A242 | 2"x1 1/2"x.25" | 7 1/2" | P12 | A36 | 1"x3/8" | 7 1/2" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | MK. V8 | | | MK. [illegible] | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T21 L-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>8 1/2" | 5'-4 1/4" | DS | A242 | .92 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 7/8" | — | — | — | CH<br>CH | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

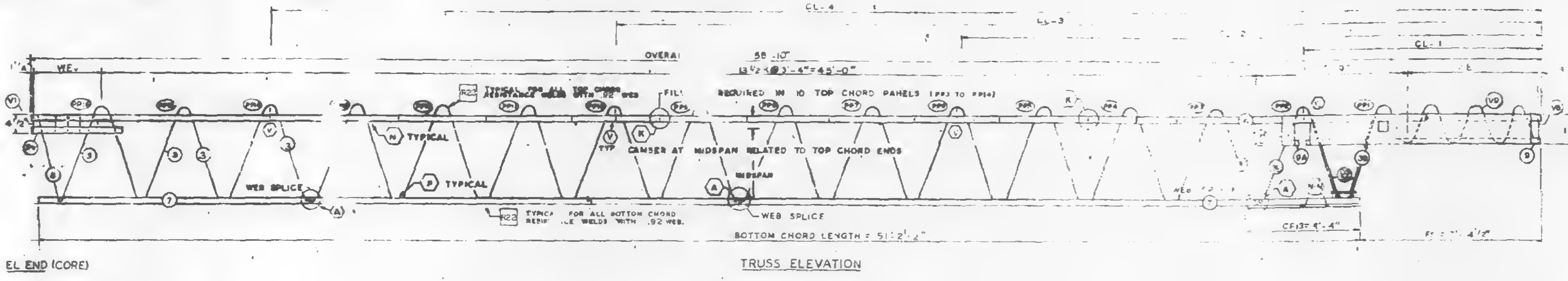
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER (4 REQ'D) MK. V1 | | | MK. V2 | | | MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO | MK. | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T21-L-5810 | 9v | A242 | 2"x1 1/2"x.31 | 3' 2" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | — | — | — | — | A242 | .92 | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA-3 3 | A242 | 2"x1 1/2"x.31 | 4'-4" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORI

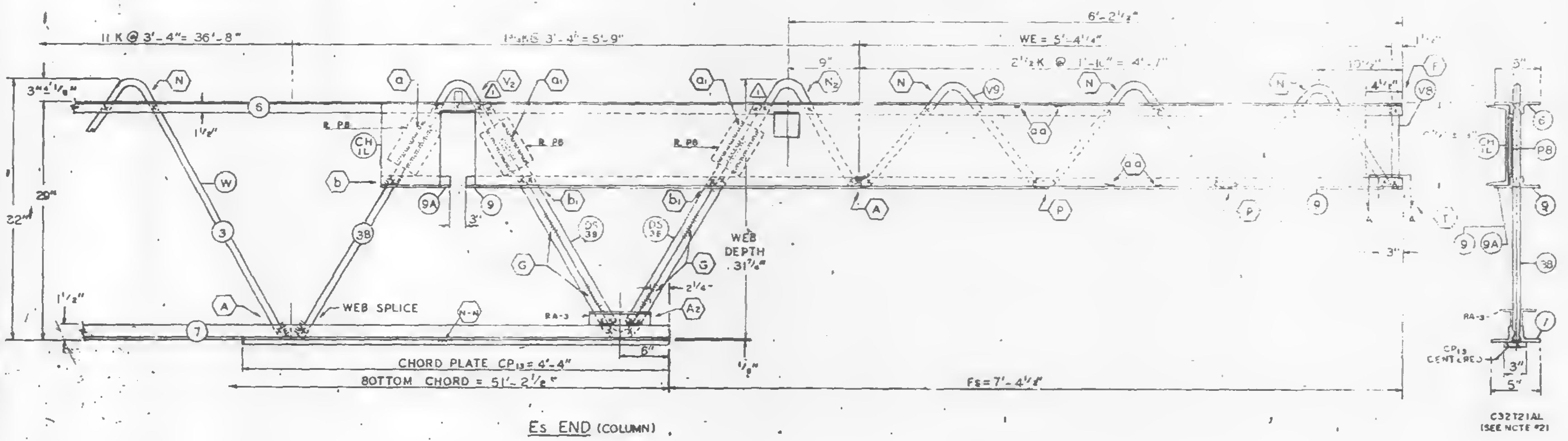
FLOOR TRUSS C32T21-L 2 (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

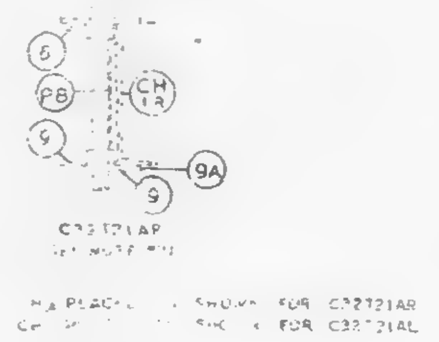
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-20 | PLATE [illegible] |
| APPROVED FOR FABRICATION James W. White FOR P.O.N.Y.A | DATE 1/13/69 | DRAWN BY: [illegible] DATE OCT. 8, 1968 | [illegible] |
| APPROVED FOR FABRICATION BY ____ FOR FABRICATOR | DATE | CHECKED BY: T.N.C[illegible] DATE OCT. 10, 1968 | [illegible] |
| DETAILED BY: A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET ST 221 |

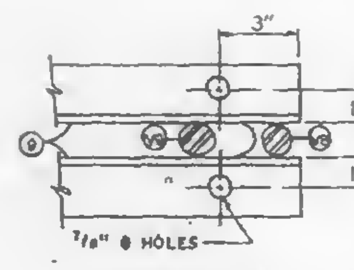

CL-4
CL-3
CL-1
OVERALL 58'-10"
13 1/2 K @ 3'-4" = 45'-0"
WE
TYPICAL
REQUIRED IN 10 TOP CHORD PANELS
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .92 WEB
BOTTOM CHORD LENGTH = 51'-2 1/2"
CP13 4'-4"
Fs = 7'-4 1/2"
10 1/8"
EL END (CORE)
ES END (COLUMN)

TRUSS ELEVATION



Es END (COLUMN)



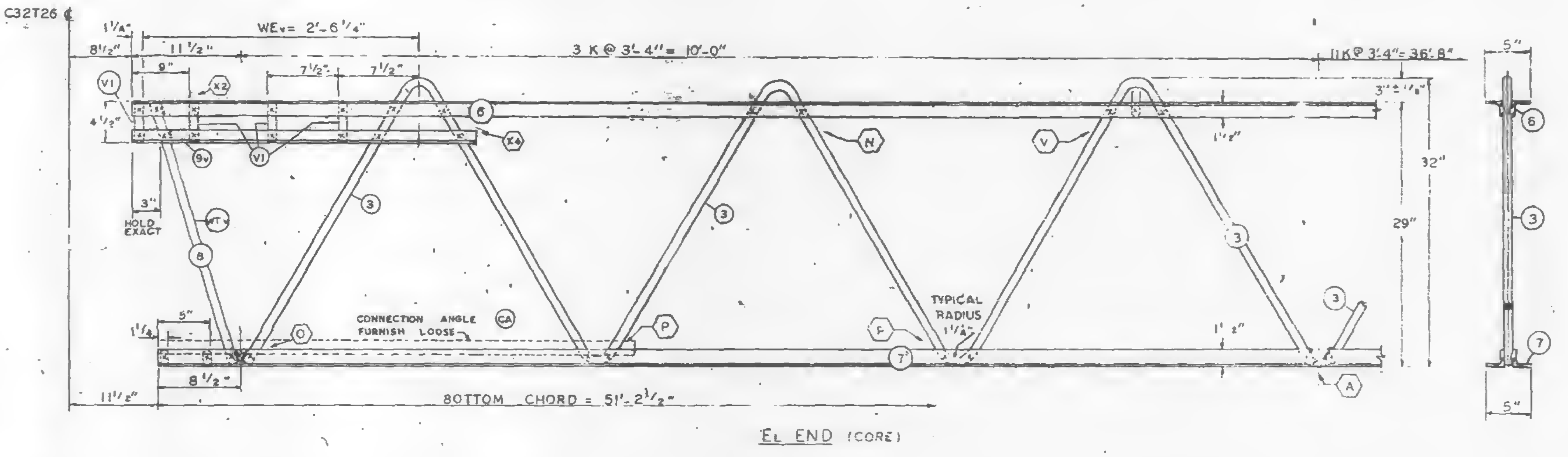


SECTION A-A

ALL FANGS ... IS RESISTANCE WELDED. (x).
... WELDS ... LOCATED AT SHADED AREAS
... AT BOTTOM CHORD WEB SPLICES.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R9].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 AND ST293.
CHANNEL DETAILS SHOWN ON SHEET ST 407.
... PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR V1 DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T21AL TRUSSES ARE APPLICABLE TO C32T21AR TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN.



El END (CORE)

FABRICATION REQUIRE...

| | DESIGN | ...LERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 3/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 58'-10 | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY. |
|---|---|---|---|
| 1 | 10-31-68 | AS NOTED | LWH |

REF. DRWG.

| | |
|---|---|
| 7-AB3-20 | 8-15-68 |
| 7-AB1-54 | 8-15-68 |
| 7-AB1-53 & 55 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 8-15-68 |
| SA-12A | 8-1-68 |
| 7-AB1-11.2 | 7-22-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CHORD PLATE | | | | ...ION FILLERS | | | CHANNEL PLATES | | | | | REINFORCING ANGLES (2 REQ'D) | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | SIZE | LENGTH | NO | DIA | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T21AL-5810 | 6 | A242 | 2"x1 1/2"x.25" | 58'-10" | 7 | A242 | 2"x1 1/2"x.25" | 51'-2 1/2" | 3<br>3B | A242<br>A242 | .92<br>.92 | 8'-2 1/2"<br>10'-7 3/8" | 14 K @ 3'-4" = 46'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 12 | .92" | — | — | — | — | — | 4 | .92 | 3" | PB | A36 | 3 | 4"x2"x.39 | [illegible] | RA3 | A242 | 2"x1 1/2"x.25 | 7 1/2" | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | CHORD PLATE | | | | END STIFFENER MK. V8 | | | MK. V9 | | | MK. V10 | | | CHANNEL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH |
| | C32T21AL-5810 | 9<br>9A | A242<br>A242 | 2"x1 1/2"x.25"<br>2"x1 1/2"x.25" | 2<br>1 | 9'-5"<br>9 1/2" | 5'-4 1/4" | DS | A242 | .92 | 2'-6 3/4" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 7/8" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10 30<br>10 30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| [illegible] | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 7'-4 1/2" |

CORE END

| El END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv STRUT" | | | | END STIFFENER (4 REQ'D) MK. V1 | | | MK. V2 | | | MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CONNECTION ANGLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LEN | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T21AL-5810 | 9v | A242 | 2"x1 1/2"x.31 | 3'-2" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | — | — | — | — | A242 | .92 | [illegible] | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1 1/2"x.31 | 4'-4" |

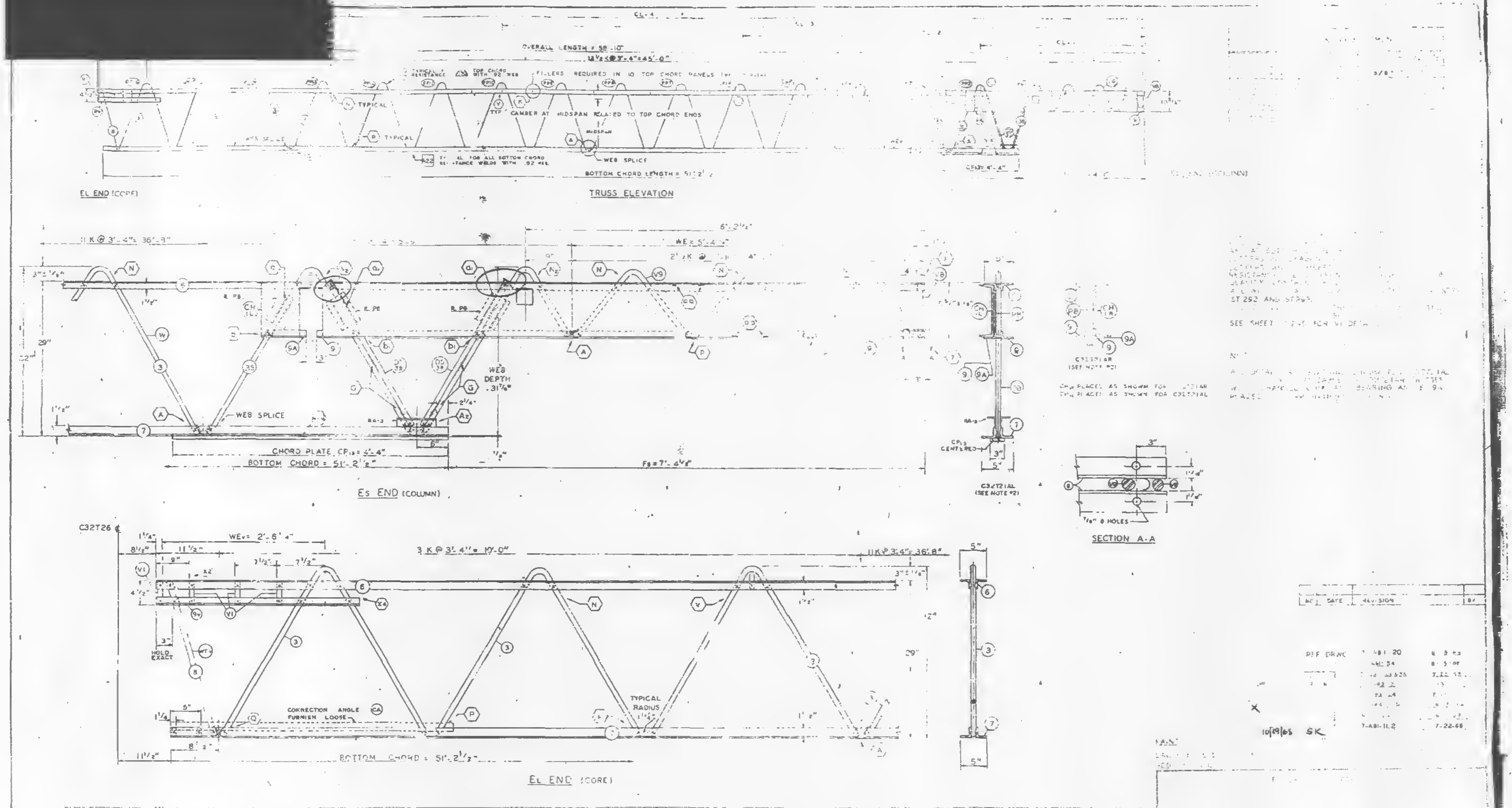
PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T21AL (SEE NOTE 2) x 58'-10"
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY ... FOR P.O.N.Y.A. DATE 11/7/68
APPROVED FOR FABRICATION BY ... FOR FABRICATOR DATE
DETAILED BY A. CARL WEBER
DESIGN DRAWING NO. 7-AB1-20
DRAWN BY gdc
DATE OCT. 5, 1968
CHECKED BY T.M. CHURA
DATE OCT. 10, 1968
FABRICATION CONT. NO. WTC 221
PLATE
IN CHARGE OF PROD. DEPT.
SHEET NO. ST 221

[redacted]



| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF K | FILLER NO | DIA | "M" HOLES | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES | REINFORCING ANGLES (2 REQ'D) MK | TYPE STEEL | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T21AL-5810 | 6 | A24[illegible] | 2"x[illegible]x.25" | 58'10" | 7 | A242 | 2"x1 1/2"x.25" | 51' 2 1/2" | 3<br>3B | A242<br>A242 | .92<br>.92 | 37'-2 1/2"<br>10'-7 5/8" | 14 K @ 3'-4" = 45'-8"<br>3.4 K @ 3'-4" ... 5'-9" | 12 | .92 | — | — | — | — | — | .92 | 3AA | A242 | [illegible] |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA | LENGTH | MK. V9 TYPE STEEL | DIA | LENGTH | MK. V10 TYPE STEEL | DIA | LENGTH | CHANNEL MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T21AL-5810 | 9<br>9A | A242<br>A36 | [illegible] | [illegible] | [illegible] | 5'-4 1/4" | 16 | A242 | .92 | 2'-6 1/4" | CP 13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 1/8" | — | — | — | CH<br>CH | A36<br>A36 | [illegible] | [illegible] |

CHECK DIMENSION FOR TRANS. ...

| LOCATION OF TRANS. ... CL-1 | CL-2 | CL-3 | CL-4 | FE |
|---|---|---|---|---|
| 9'-6 1/2" | 22'-10 1/2" | 3[illegible]'-2 1/2" | 43'-5[illegible]" | 7'-4 1/2" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WEV | DIAGONAL "D" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER (4 REQ'D) MK. V1 TYPE STEEL | DIA | LENGTH | MK. V2 TYPE STEEL | DIA | LENGTH | MK. V4 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | CONNECTION ANGLE NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T21AL-5810 | 9L | A242 | 2"x1 1/2"x.31 | 3'-2" | 2'-6 1/4" | 8 | A242 | .92 | 2'-5 3/4" | — | — | — | — | A242 | .92 | 4 3/8" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1 1/2"x.31 | 4'-4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
|  |  |  |  |

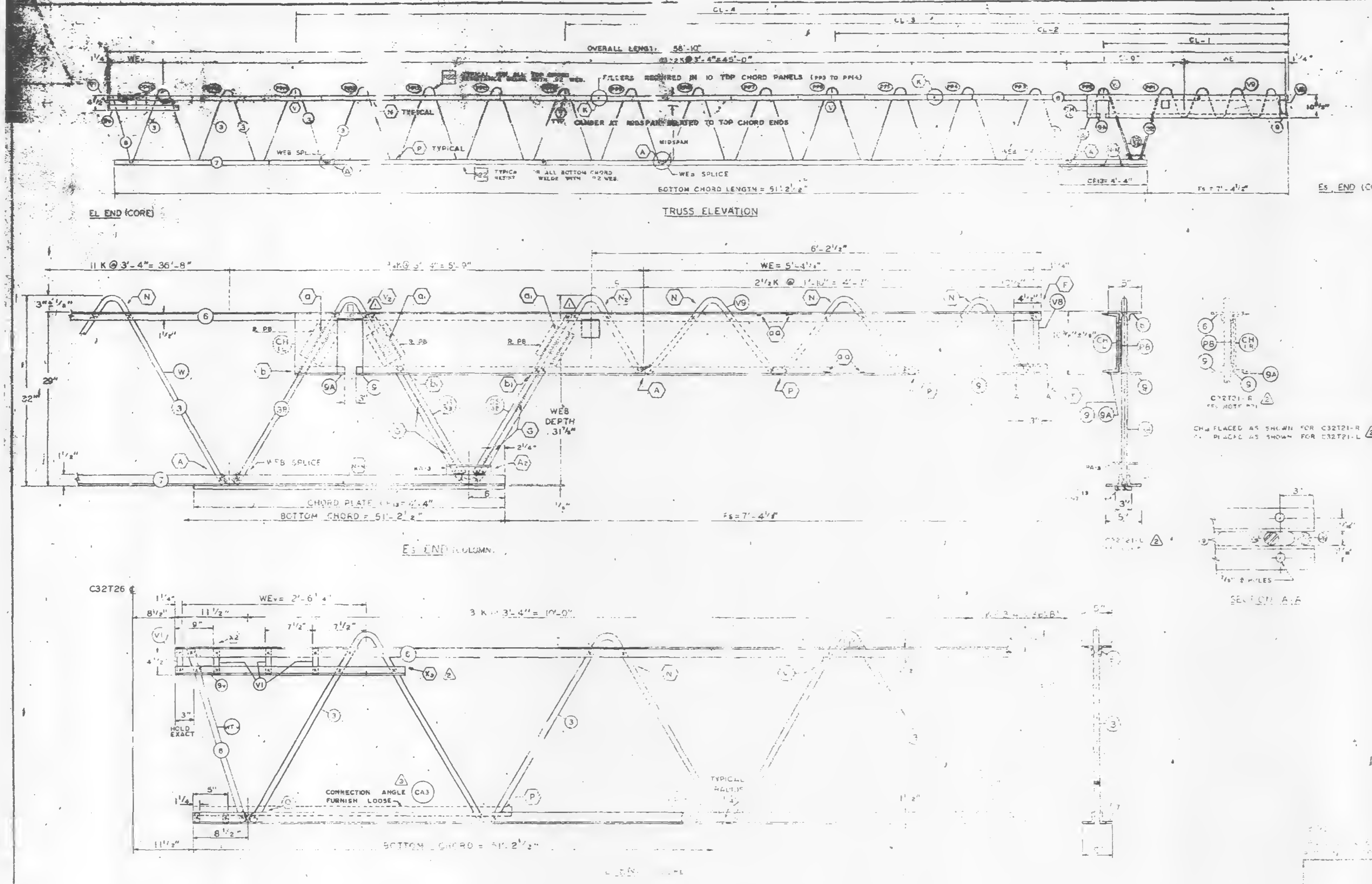
REF DRWG 7-AB1-20 6-3-63
AB1-24 8-5-68
7-22-68
7-AB1-11.2 7-22-68

10/29/65 SK

AT MADISON

DETAILED BY A. CARL WEBB

ST 221AL



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 3/8" | ± [illegible] |
| DESIGN DEPTH | 29" | ± [illegible] |
| PANEL K | 3'-4" | ± [illegible] |
| OVERALL LENGTH | 58'-[illegible]" | ± [illegible] |
| WEB DEPTH | [illegible] | ± [illegible] |

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨).
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., (A).
LETTERS AND NUMBERS IN SQUARES INDICATE
RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie., [R9].
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291,
ST 292 AND ST293.
ALL CHANNEL DETAILS SHOWN ON SHEET ST 407.
CHORD PLATE DETAILS SHOWN ON SHEET ST 283.
SEE SHEET ST 295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T21-L TRUSSES ARE APPLICABLE TO C32T21-R TRUSSES WITH CHANNEL CH1 AND BEARING ANGLE 9A PLACED ON OPP HAND AS SHOWN. △2

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 12-3-66 | AS NOTED | G.D.C. |
| △2 | 11-7-68 | AS NOTED | G.D.C. |
| △1 | 10-31-68 | AS NOTED | L.W.H. |

△3 REF DRAW

| | |
|---|---|
| 7-AB1-20 | 10-4-68 |
| 7-AB1-34 | 11-28-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-2 | 1-3-68 |
| 7-AB3-24 | 8-15-68 |
| 7-AB4-17 & F12 | 10-4-68 |
| 7-A[illegible]-124 | 10-11-68 |
| 7-AB4-1L2 | 7-22-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| △2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. |
| C32T21-L-5810 | 8 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | [illegible] | 51'-2½" | 3<br>3B | A242<br>A242 | .92<br>.92 | [illegible] | [illegible] | 12 |

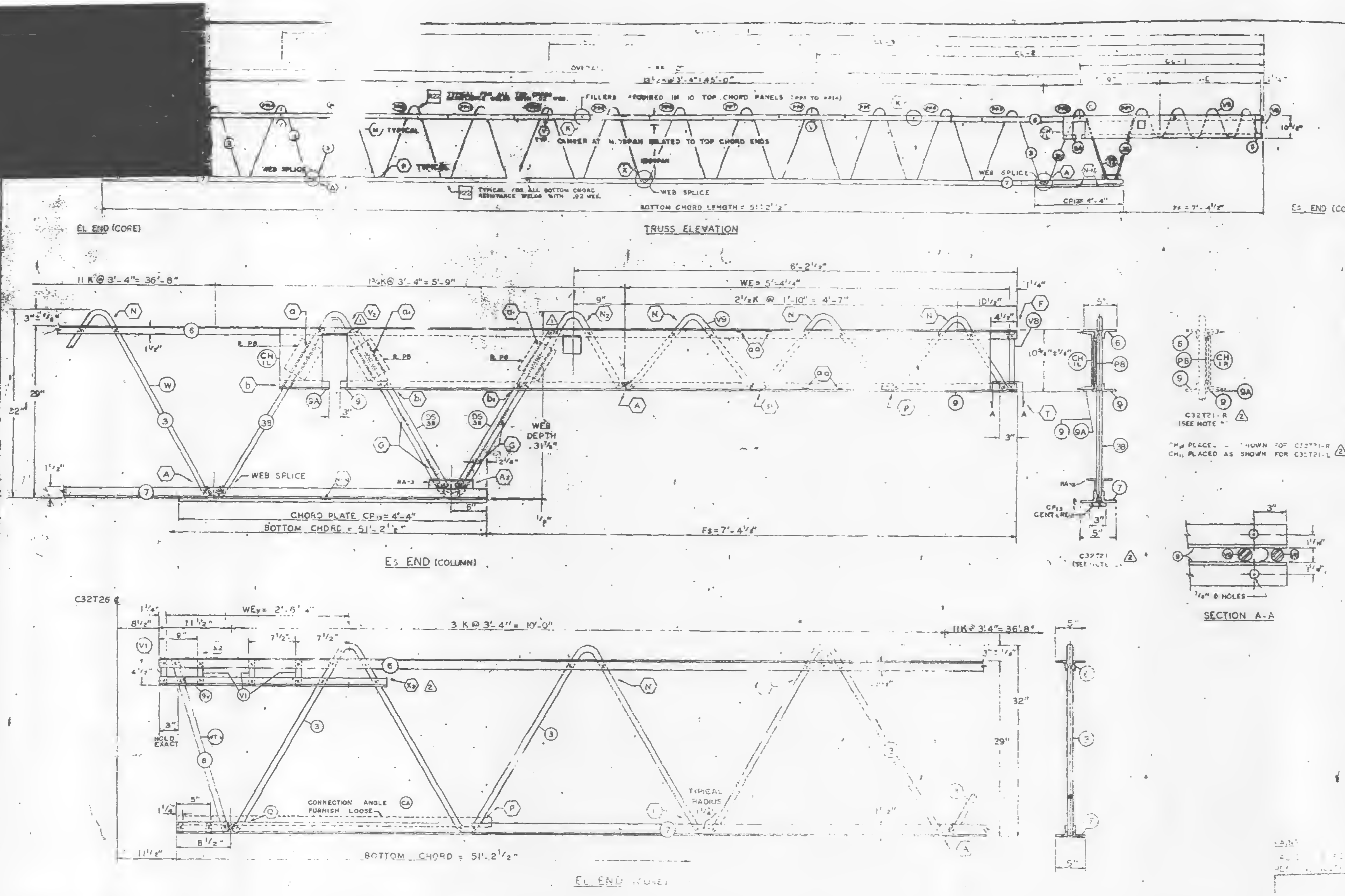
| | ES END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | | | | CHORD PLATE | | | | STIFFENER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COLUMN END | △2 | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | DIA | LENGTH REQ'D | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA |
| | C32T21-L-5810 | 9<br>9A | A242<br>A242 | [illegible] | [illegible] | [illegible] | [illegible] | .92 | [illegible] | 13 | A36 | 3"x.25" | 4'-4" | A242 | .92 |

| | EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL STRUT | | | | VERTICAL STRUT | | | | STIFFENER (4 REQ'D) | | | CONNECTION ANGLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE END | △3 | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
| | C32T21-L-5810 | 9 | A242 | 2"x1½"x.31 | 3'-2" | 2'-6¼" | 8 | A242 | .92 | 2'-5¾" | — | — | — | — | A242 | .92 | 4'-8" | 2 | CA-3 △3 | A242 | 2"x1½"x.31 | 4'-4" |

FLOOR TRUSS C32T21-L △2
WORLD TRADE CENTER

| | | |
|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | |
| LOCATED AT MADISON, ILLINOIS | CONTRACT 20 | PLATE |
| APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. 12/9/68 | DRAWN BY [illegible] DATE OCT. 5 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY T.M. CHURA DATE OCT 10 1968 | IN CHARGE OF PWXD DIV. |
| DETAILED BY LACLEDE STEEL CO. | FABRICATION CONT. NO. WTC 221 | SHEET ST 221 |

[redacted]



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 3/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/8" |
| PANEL | 3'-4" | 1/8" |
| OVERALL LENGTH | 58'-6" | ± 3/8" |
| WEB DEPTH | 8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED. (x). ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A) LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R8. ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292 AND ST293. ALL CHANNEL DETAILS SHOWN ON SHEET ST407. CHORD PLATE DETAILS SHOWN ON SHEET ST283. SEE SHEET ST295 FOR VI DETAIL.

NOTE 2

ALL DETAILS & ELEVATIONS SHOWN FOR C32T21-L TRUSSES ARE APPLICABLE TO C32T21-R TRUSSES WITH CHANNEL CH1R AND BEARING ANGLE 9A PLACED ON OPP. HAND AS SHOWN. ②

| NO | DATE | REVISION | BY |
|---|---|---|---|
| ② | 11-7-68 | AS NOTED | G.D.C. |
| ① | 10-31-68 | AS NOTED | L.W.H. |

② REF. DRWG.

| | |
|---|---|
| 7-AB1-20 | 10-4-68 |
| 7-AB1-34 | 10-4-68 |
| 7-AB1-53 | 7-22-68 |
| [illegible]-2 | 1-3-68 |
| [illegible]-24 | 8-15-68 |
| 7-AB4-17 & 17.2 | 10-4-68 |
| SA-124 | 10-11-68 |
| 7-AB4-IL2 | 7-22-68 |

| TRUSS DESIGNATION ② | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA. | LENGTH | NO OF K | FILLER NO. | DIA. | "M" ℄ HOLES | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | [illegible] | CHANNEL PLATES MK | TYPE STEEL | [illegible] | SIZE | LENGTH | REINFORCING ANGLES MK | STEEL | SIZE | LENGTH | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T21-L-5810 | 6 | A242 | 2"x1½"x.25" | 58'-10" | 7 | A242 | 2"x1½"x.25" | 51'-2½" | 3<br>3B | A242<br>A242 | .92<br>.92 | 47'-2½"<br>10'-7.5" | 14 K @ 3'-4" = 46'-8"<br>[illegible] K @ 3'-4" = 5'-9" | 12 | .92" | — | — | — | — | — | .92 | [illegible] | A36 | [illegible] | 4"x.39 | [illegible] | RA-9 | A242 | 2"x1½"x.25" | [illegible] | [illegible] |

COLUMN END

| Es END | TRUSS DESIGNATION ② | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL MK | TYPE STEEL | CHANNEL SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T21-L-5810 | 9<br>9A | A242<br>A242 | 2"x1½"x.25"<br>2"x3½"x.25" | 1<br>1 | [illegible]<br>8½" | 5'-4¼" | 5 | A242 | .92 | 2'-6¾" | CP13 | A36 | 3"x.25" | 4'-4" | A242 | .92 | 10½" | A242 | .92 | 8'-3⅞" | — | — | — | CH1L<br>CH1R | A36<br>A36 | 10[illegible]30<br>10[illegible]30 | 10'-0"<br>10'-0" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 7'-4½" |

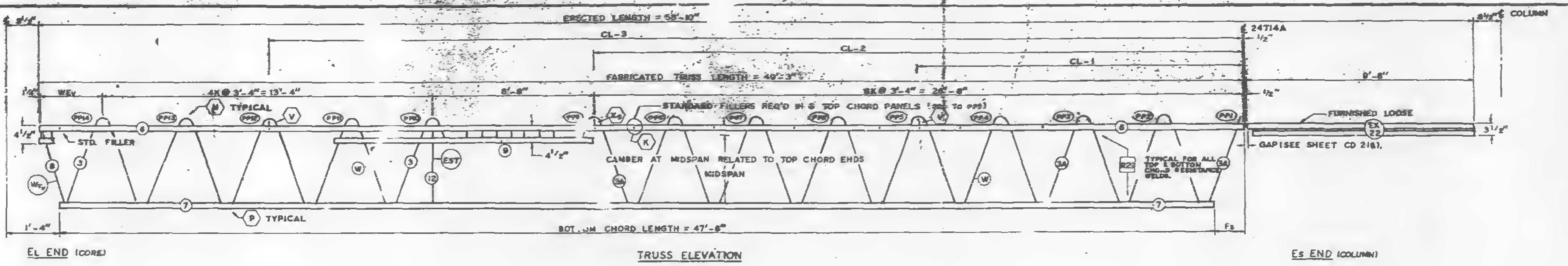
CORE END

| EL END | TRUSS DESIGNATION ② | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | WEy | DIAGONAL "Tv" STRUT MK | TYPE STEEL | DIA. | LENGTH | VERTICAL "STv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER (4 REQ'D) MK. V1 TYPE STEEL | DIA. | LENGTH | V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | CONNECTION ANGLE NO | MK | TYPE STEEL | ANGLE SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T21-L-5810 | 8 | A242 | 2"x1½"x.31 | 3'-2" | 2'-6' 4" | 8 | A242 | .92 | 2'-5¾" | — | — | — | — | A242 | .92 | 4⅝" | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2 | CA | A242 | 2"x1½"x.31 | 4'-4" |

FLOOR TRUSS DETAILS
FOR
WORLD TRADE CENTER [illegible]
FOR
THE PORT OF NEW YORK AUTHORITY
[illegible] C32T21-L ② [illegible] 58'-[illegible]
WORLD TRADE CENTER TOWERS [illegible]

FABRICATION BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-20
PLATE
APPROVED FOR FABRICATION BY [illegible] FOR PONYA DATE 11/18/68
DRAWN BY [illegible] DATE OCT. 3, 1968
APPROVED FOR FABRICATION BY [illegible] FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE OCT. 13, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY A. ARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 221 L



2-C32T26
ERECTED LENGTH = 58'-10"
CL-3
CL-2
CL-1
24T14A
FABRICATED TRUSS LENGTH = 49'-3"
9'-6"
COLUMN
WEv
4K @ 3'-4" = 13'-4"
8'-8"
8K @ 3'-4" = 26'-8"
TYPICAL
STANDARD FILLERS REQ'D IN 6 TOP CHORD PANELS
FURNISHED LOOSE
STD. FILLER
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
GAP (SEE SHEET CD 218)
TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS
TYPICAL
BOTTOM CHORD LENGTH = 47'-6"
1'-4"
Fs

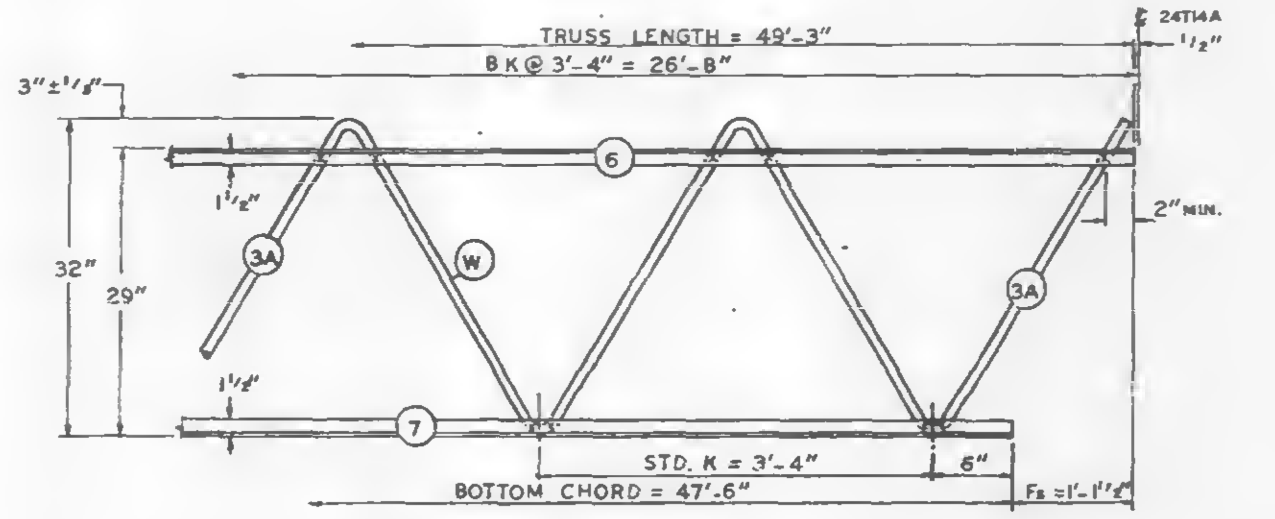
EL END (CORE) — TRUSS ELEVATION — Es END (COLUMN)

## FABRICATION REQUIREMENTS

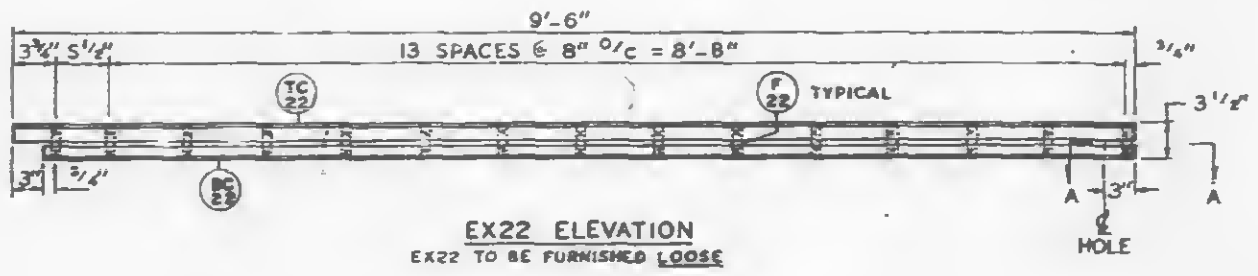
| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 13/16" | ± 3 8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'- | ± 1/4" |
| WEB DEPTH | 31 | ± 1/4" |
| OVERALL TRUSS LENGTH | 49'-3" | ± 3/8 |
| *OVERALL EXT. END LENGTH | 9'-6" | 4" |

*EXT. END MK. EX22 TO BE FURNISHED LOOSE.

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES. (▮▮▮).
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291, ST 292 & ST 293.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., ⬡P.
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R21.



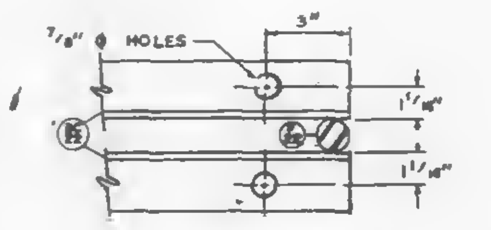
Es END (COLUMN)



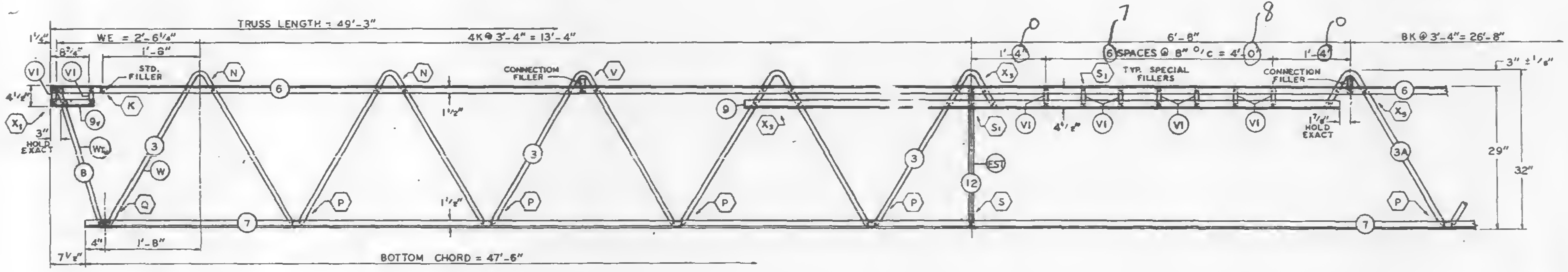
## EX22 ELEVATION

EX22 TO BE FURNISHED LOOSE

| LIST OF MATERIALS FOR EX22 | | | | | | |
|---|---|---|---|---|---|---|
| MK. | PCS. | TYPE STEEL | DIA. | ANGLE SIZE | LENGTH | TOLERANCE |
| TC22 | 2 | A242 | —— | 2"x1 1/2"x.25" | 9'-6" | +1/4" -0" |
| BC22 | 2 | A242 | —— | 2"x1 1/2"x.25" | 9'-3" | +1/4" -0" |
| F22 | 15 | A242 | .98 | —— | 3 3/8" | ± 1/8" |



SECTION A-A



EL END (CORE)

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | STD. FILLER | | "M" C/C HOLE | BEARING ANGLES | | | | VERTICAL "EST" STRUT | | | | | SPECIAL FILLER MK. VI | | | CONNECTION FILLER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | PCS. | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (~~7~~ 8 REQ'D) | TYPE STEEL | DIA. | LENGTH (3 REQ'D) |
| C32T22-493 | 6 | A242 | 2"x1 1/2"x.25" | 49'-3" | 7 | A242 | 2"x1 1/2"x.25" | 47'-6" | 3<br>3A | A242<br>A242 | .98<br>.98 | 28'-8 3/4"<br>[illegible] | 4 1/2K @ 3'-4" = 15'-0"<br>8K @ 3'-4" = 26'-8" | 7 | .98 | —— | 9 | A242 | 2"x1 1/2"x.25" | 10'-5 1/2" | 12 | A242 | 1 | .98 | 2'-4 7/8" | A242 | .98 | 4 3/8" | A242 | .98 | 3" |

COLUMN END

| Es END | TRUSS DESIGNATION |
|---|---|
| | |
| | C32T22-493 |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | END STIFFENER MK. VI | | | WEB "WTv" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | PCS. | DIA. | LENGTH |
| | C32T22-493 | 9v | A242 | 2"x1 1/2"x.25" | 10" | 2'-6 1/4" | A242 | .98 | 4 3/8" | 8 | A242 | 1 | .98 | 2'-5 3/4" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | |
|---|---|---|---|
| CL-1 | CL-2 | CL-3 | Fs |
| 13'-3 1/2" | 26'-7 1/2" | 39'-11 1/2" | 1'-1 1/2" |

SKILLING-HELLE
CHRISTIANSEN-ROBERTSON
Structural & Civil Engineers
X
12/6/68 SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| REF. DRWG. | |
|---|---|
| 7-AB1-21 | 10-4-68 |
| 7-AB4-10 | 10-4-68 |
| 7-AB1-54 | 10-4-68 |
| 7-AB1-1 | 4-1-68 |
| 7-AB3-34 & 35 | 10-4-68 |
| 7-AB4-57 & 59 | 10-4-68 |
| SA-124 | 10-11-68 |

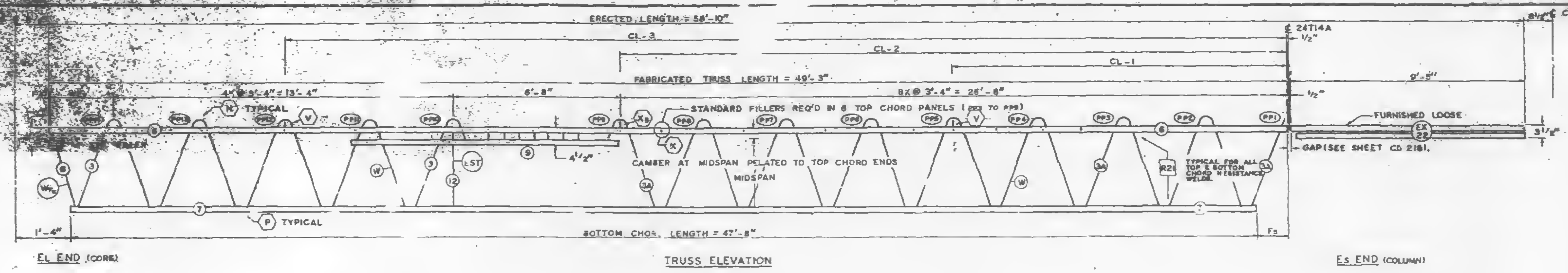
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T22 x 49'-3" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-21 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE | DRAWN BY: g.d.c.<br>DATE NOV. 13, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE NOV. 13, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 222 |

LACLEDE STEEL CO.

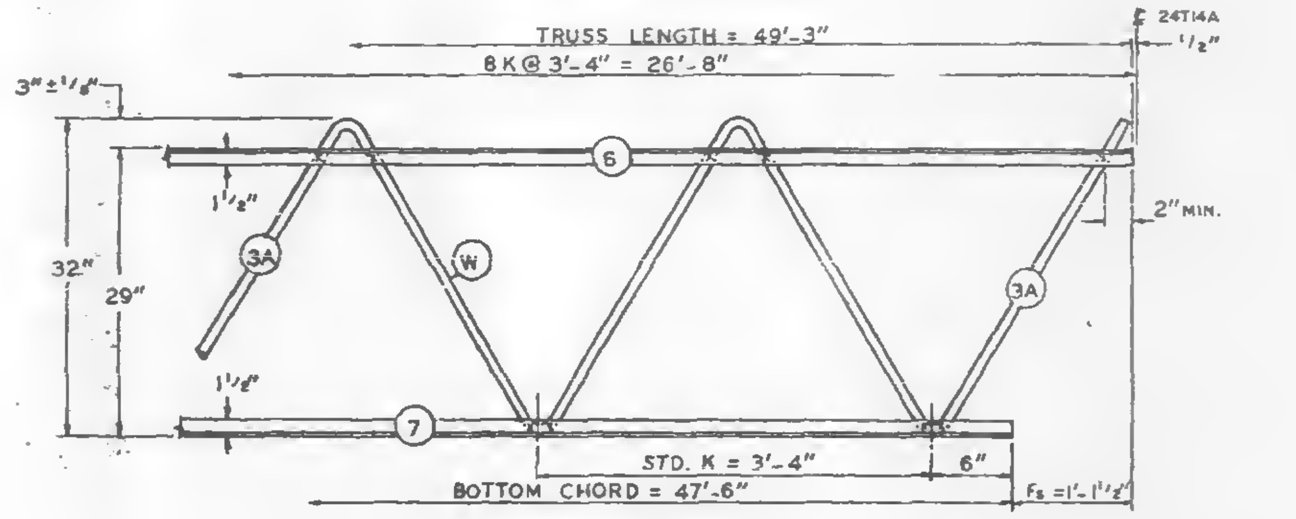

ERECTED LENGTH = 58'-10"
CL-3
CL-2
CL-1
FABRICATED TRUSS LENGTH = 49'-3"
4K@3'-4" = 13'-4"
6'-8"
8K@3'-4" = 26'-8"
24T14A
1/2"
9'-5"
COLUMN
K TYPICAL
STANDARD FILLERS REQ'D IN 6 TOP CHORD PANELS
FURNISHED LOOSE
EX 22
GAP (SEE SHEET CD 2181)
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
TYPICAL FOR ALL TOP & BOTTOM CHORD RESISTANCE WELDS
R21
P TYPICAL
BOTTOM CHORD LENGTH = 47'-6"
1'-4"
Fs

EL END (CORE) TRUSS ELEVATION Es END (COLUMN)

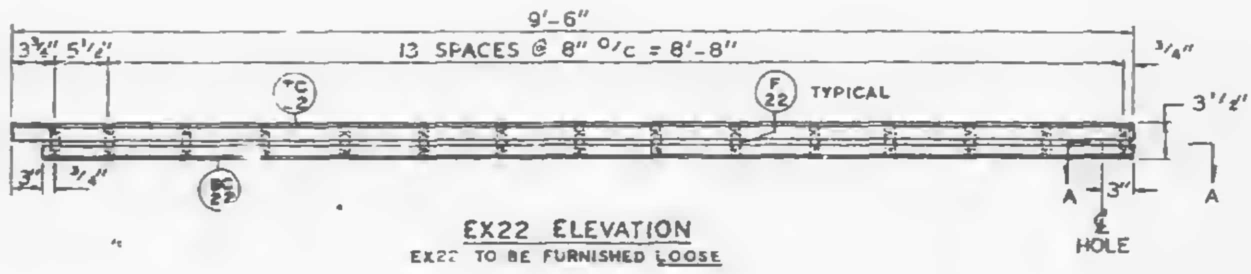
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 13/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| WEB DEPTH | 31 7/8" | ± 1/4" |
| OVERALL TRUSS LENGTH | 49'-3" | ± 3/8" |
| *OVERALL EXT. END LENGTH | 9' | ± 1/4" |

*EXT. END MK. EX22 TO BE FURNISHED LOOSE.

ALL PANEL POINTS RESISTANCE WELDED. (X).
ARC WELDS INDICATED . SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEET ST 290, ST 291, ST 292 & ST 293.
LETTERS IN HEXAGON INDICATE WELD DETAIL. ie., (P).
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., R21.

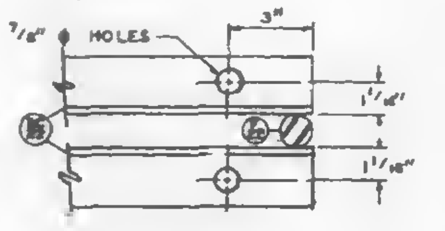


Es END (COLUMN)

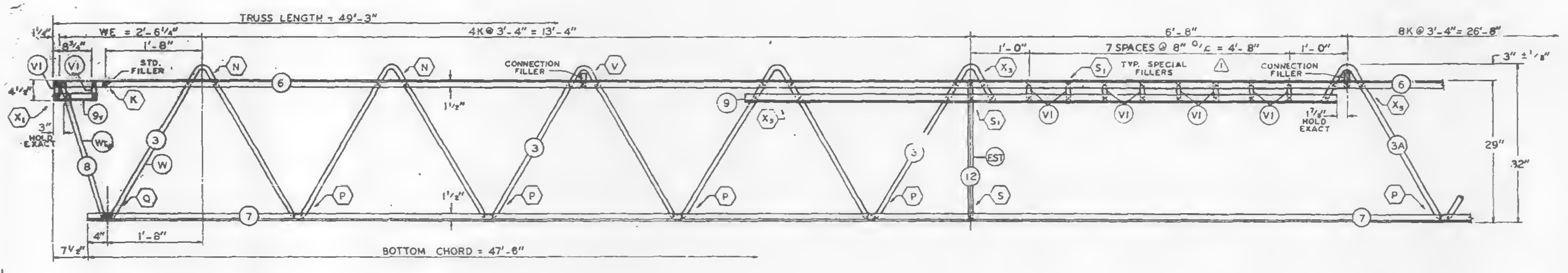


EX22 ELEVATION
EX22 TO BE FURNISHED LOOSE

| LIST OF MATERIALS FOR EX22 | | | | | | |
|---|---|---|---|---|---|---|
| MK. | PCS. | TYPE STEEL | DIA. | ANGLE SIZE | LENGTH | TOLERANCE |
| TC22 | 2 | A242 | — | 2"x1½"x.25" | 9'-6" | +1/4" -0" |
| BC22 | 2 | A242 | — | 2"x1½"x.25" | 9'-3" | +1/4" -0" |
| F22 | 15 | A242 | .98 | — | 3⅜" | ± 1/8" |



SECTION A-A



EL END (CORE)

REF. DRWG.

| | |
|---|---|
| 7-AB1-21 | 10-4-68 |
| 7-AB4-10 | 10-4-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-1 | 4-1-68 |
| 7-AB3-34 & 35 | 10-4-68 |
| 7-AB4-57 & 59 | 10-4-68 |
| SA-124 | 10-11-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | STD. FILLER | | "M" C/C HOLE | BEARING ANGLES | | | | VERTICAL "EST" STRUT | | | | | SPECIAL FILLER ⚠ MK. VI | | | CONNECTION FILLER | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | PCS. | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (8 REQ'D) | TYPE STEEL | DIA. | LENGTH (3 REQ'D) |
| C32T22-493 | 6 | A242 | 2"x1½"x.25" | 49'-3" | 7 | A242 | 2"x1½"x.25" | 47'-6" | 3<br>3A | A242<br>A242 | .98<br>.98 | 28'-6¾"<br>50'-6⅜" | 4½K@3'-4"=15'-0"<br>8K@3'-4"=26'-8" | 7 | .98 | — | 9 | A242 | 2"x1½"x.25" | 10'-5⅛" | 12 | A242 | 1 | .98 | 2'-4⅞" | A242 | .98 | 4⅜" | A242 | .98 | 3" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | |
|---|---|---|---|
| CL-1 | CL-2 | CL-3 | Fs |
| 13'-3½" | 26'-7½" | 39'-11½" | 1'-1½" |

COLUMN END

| Es END | TRUSS DESIGNATION |
|---|---|
| | C32T22-493 |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | END STIFFENER MK. VI | | | WEB "WTv" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | TYPE STEEL | DIA. | LENGTH (12 REQ'D) | MK. | TYPE STEEL | PCS. | DIA. | LENGTH |
| | C32T22-493 | 9v | A242 | 2"x1½"x.25" | 10" | 2'-6¼" | A242 | .98 | 4⅜" | 8 | A242 | 1 | .98 | 2'-5¾" |

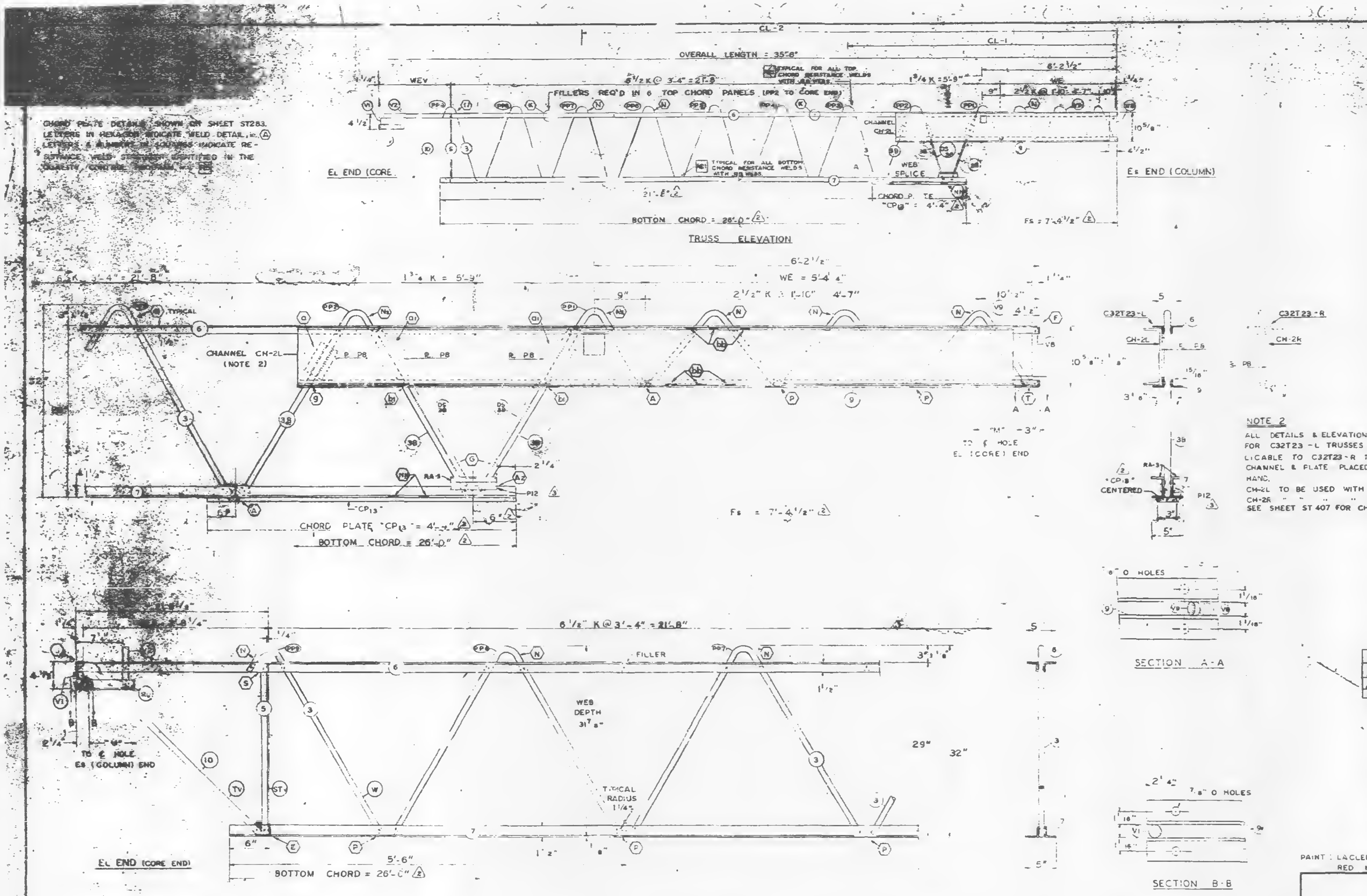
| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 12-9-68 | SPECIAL FILLER, REF. DRWG. | G.D.C. |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T22 x 49'-3" LONG
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-21
PLATE
APPROVED FOR FABRICATION BY: James White FOR P.O.N.Y.A. DATE 12/12/68
DRAWN BY: g.d.c. DATE NOV. 13, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE NOV. 13, 1968
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO W.T.C. 221
SHEET NO. ST 222

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. (A)
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL [illegible]



NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T23-L TRUSSES ARE APPLICABLE TO C32T23-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP. HAND.
CH-2L TO BE USED WITH C32T23-L
CH-2R " " " " C32T23-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| FABRICATION [illegible] | | |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | 4" | ±1/ |
| OVERALL LENGTH | 35'-8" | ±3/8" |
| WEB DEPTH | 31 7/8" | ±1/4" |
| CL DIMENSIONS | — | ±3/8" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 12-26-68 | AS NOTED | [illegible] |
| 2 | 10-18-68 | AS NOTED | [illegible] |
| 1 | 10-4-68 | GENERAL | [illegible] |

3 REF. DRWG.

| | |
|---|---|
| 7-ABI-22 | 10-4-68 |
| 7-ABI-52 | 2-15-68 |
| 7-ABI-53 | 7-22-68 |
| 7-ABI-54 | 11-13-68 |
| 7-AB4-53-56 | 10-4-68 |
| SA-124 | 10-11-68 |

PAINT: LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | CHANNEL PLATES | | | | | REINF ANGLE (2 REQ'D) | | | | SPEC. PLATES (2 REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH (2) | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF "K" SEE NOTE 1 | NO. | DIA. | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LGTH. | MK. | TYPE STEEL | SIZE | LGTH. |
| C32T23-L | 6 | A242 | 2"x1 1/2"x.25 | 35'-8" | 7 | A242 | 2"x1 1/2"x.25 | 26'-0" | 3 | A242 | .98 | 40'-11 1/4" | 6 1/2K@ 3'-4"=21'-8" | 6 | .98 | 35'-2 3/4" | — | — | — | | | | | P6 | A36 | 3 | 4"x2x39 | 5 1/2" | RA3 | A242 | 2"x1 1/2"x.25 | 7 1/2" | P12 | A36 | 1"x3/8" | 7 1/2" |
| | | | | | | | | | 3B | A242 | .98 | 10'-7 5/8" | 1 3/4 K = 5'-9" | | | | | | | | | | | | | | | | | | | | | | | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | | END STIFFENER MK. V6 | | | END STIFFENER MK. V5 | | | MK. V10 | | CHANNEL NOTE NO. 2 | | | | CHORD PLATE (2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | PCS | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| | C32T23-L | 9 | A242 | 2x1 1/2x.25 | 2 | 10'-4 1/2" | 5'-4 1/4" | DS 3B | A242 | .98 | 2'-6 3/8" | 2 | A242 | .98 | 10 1/2" | A242 | .98 | 6'-3 7/8" | — | — | [illegible]<br>[illegible] | A36<br>A36 | 10 x 30<br>10 x 30 | 10'-0<br>10'-0 | CP13 | A36 | 3"x.25 | 4'-4 1/2" |

CHECK DIMENSION FOR FAB

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" (2) |

CORE END

| El END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | PCS |
| | C32T23-L | 8V | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | .98 | 3'-6 1/4" | 5 | A242 | .98 | 2'-4 7/8" | A242 | .98 | 4 3/8" | A242 | .98 | 7 3/8" | — | — | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

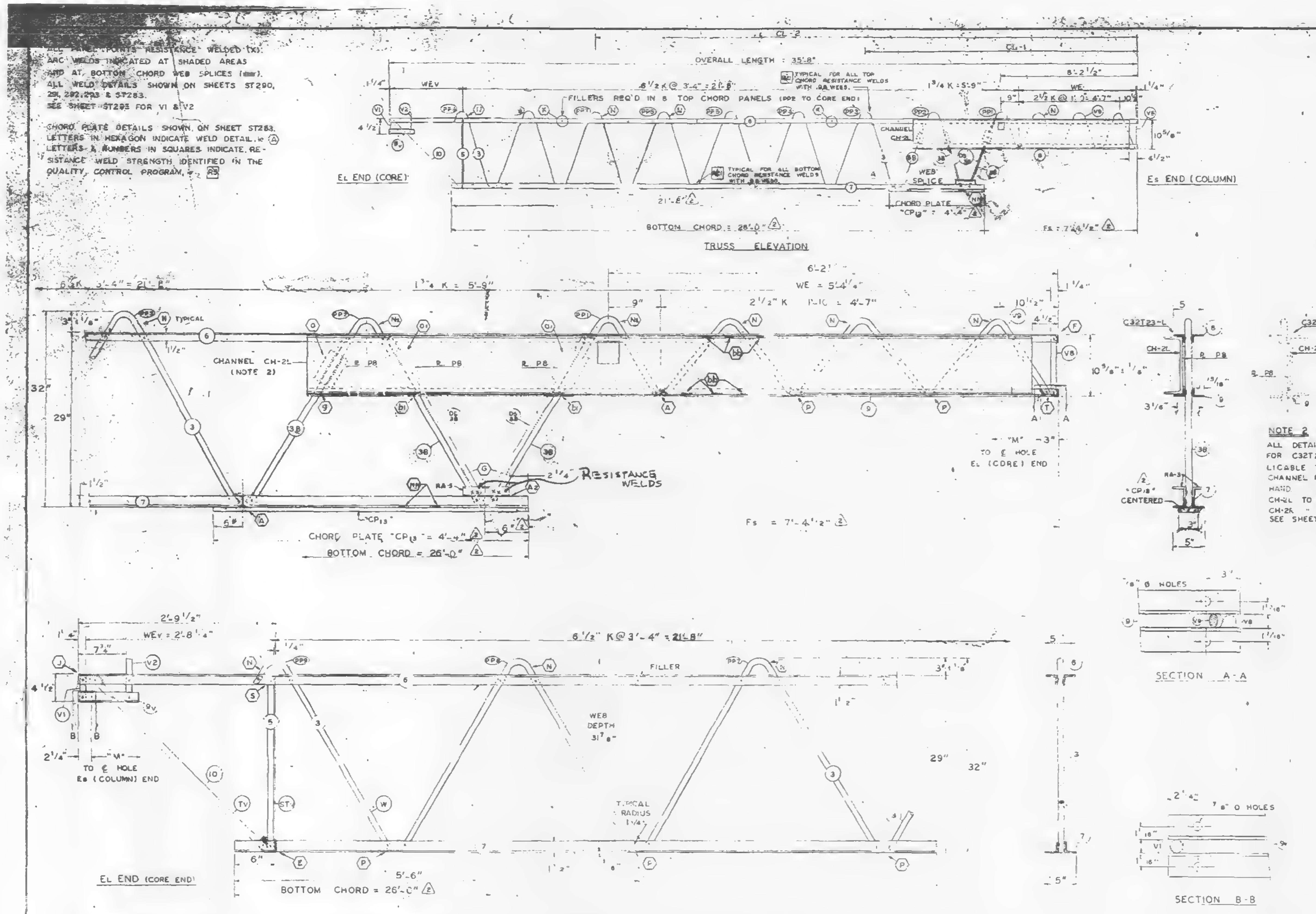
FLOOR TRUSS C32T23-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-ABI-22 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. | DATE 1/13/67 | DRAWN BY: [illegible] DATE SEPT. 6, 1968 | |
| APPROVED FOR FABRICATION BY ________ FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 223-1 |

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290, 291, 292, 293 & ST283.
SEE SHEET ST293 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie R5



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE ± |
|---|---|---|
| CAMBER AT MIDSPAN | 3/8" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |
| CL DIMENSIONS | — | ± 1/ |

**NOTE 2**
ALL DETAILS & ELEVATIONS SHOWN FOR C32T23-L TRUSSES ARE APPLICABLE TO C32T23-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP. HAND
CH-2L TO BE USED WITH C32T23-L
CH-2R " " " " C32T23-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 10-16-68 | AS NOTED | L.W.H. |
| 1 | 10-4-68 | GENERAL | T.M.C. |

| REF DRWG. | |
|---|---|
| 7-AB1-22 | 8-13-68 |
| 7-AB1-52 | 2-15-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB1-54 | 6-15-68 |
| 7-164-53-56 | 8-15-68 |
| SA-12A | 8-1-68 |

PAINT: LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | CHANNEL PLATES | | | | | REINF. ANGLE (2 REQ'D) | | | | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH △2 | MK. | TYPE STEEL | DIA. | LENGTH | NO OF "K" SEE NOTE 1 | NO | DIA. | | NO | DIA | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LGTH. | | |
| C32T23-L | 6 | A242 | 2"x1 1/2"x.25 | 35'-8" | 7 | A242 | 2"x1 1/2"x.25 | 26'-0" | 3<br>3B | A242<br>A242 | [illegible]<br>.98 | 40'-11 1/4"<br>10'-7 5/8" | 6 1/2 K @ 3'-4" = 21'-8"<br>1 3/4 K = 5'-9" | 8 | .98 | 35'-2 3/4" | — | — | — | | | | | P8 | A36 | 3 | 4"x3/8" | 5 1/2" | RA3 | A242 | 2"x1 1/2"x.25 | 7 1/2" | | |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL NOTE NO. 2 | | | | CHORD PLATE △2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | PCS. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| | | C32T23-L | ~~8~~<br>— | ~~A242~~<br>— | ~~2x1 1/2x.25~~<br>— | ~~2~~<br>— | ~~10'-4 1/2"~~<br>— | 5'-4 1/4" | DS<br>3B | A242 | .98 | 2'-5 3/4" | 2 | A242 | .98 | 10 1/2" | A242 | .98 | 8'-3 7/8" | — | — | — | CH2L<br>CH2R | A36<br>A36 | 10 ⊏ 30<br>10 ⊏ 30 | 10'-0"<br>10'-0" | CP13 | A36 | 3"x.25 | 4'-4" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | PCS |
| | | C32T23-L | 9v | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | .98 | 3'-8 1/4" | 5 | A242 | .98 | 2'-4 7/8" | A242 | .98 | 4 3/8" | A242 | .98 | 7 3/8" | — | — | — | — | — | — | — | — | — | — | — | — |

CHECK DIMENSION FOR FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" △2 |

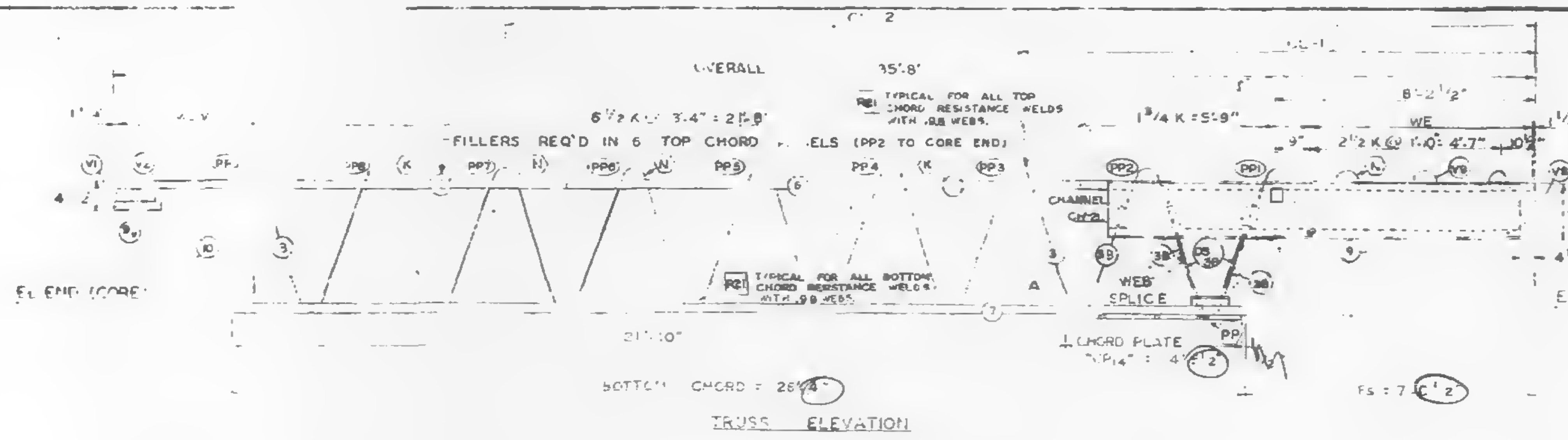
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T23-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-22
PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE 10/23/68
DRAWN BY: [illegible] DATE SEPT. 6, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T.M. CHURA DATE SEPT. 9, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 223-L

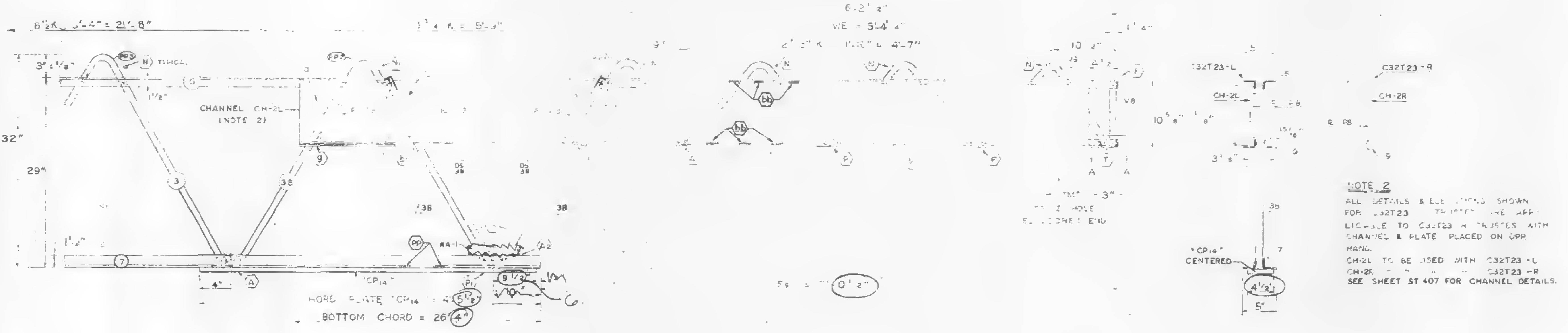
ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290,
291, 292, 293 & ST283.
SEE SHEET ST295 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ... Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ... R5



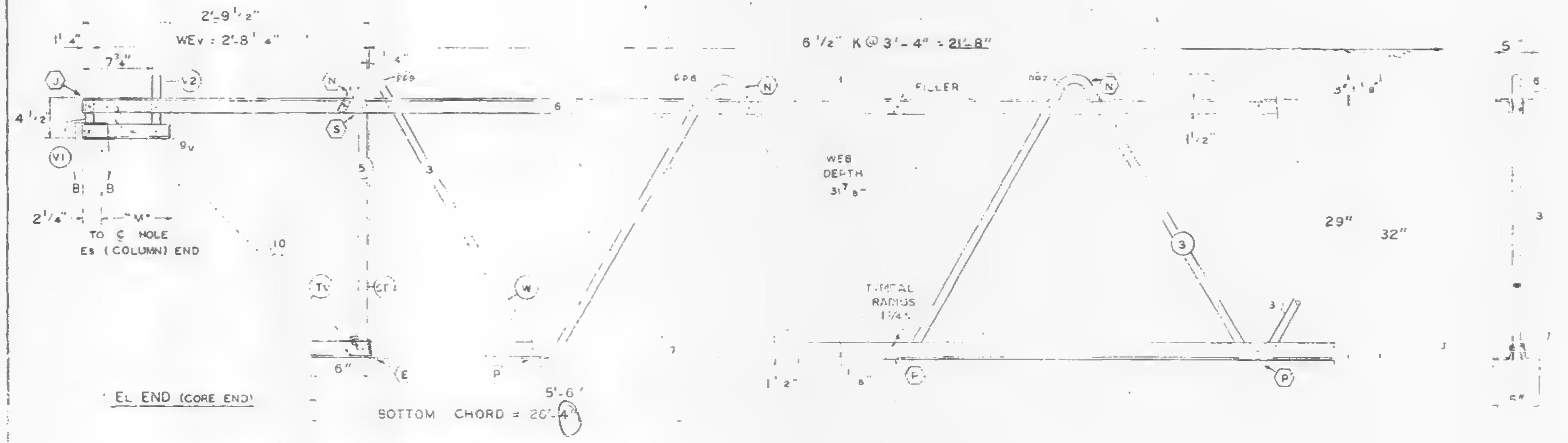
BOTTOM CHORD = 26'-4"

TRUSS ELEVATION



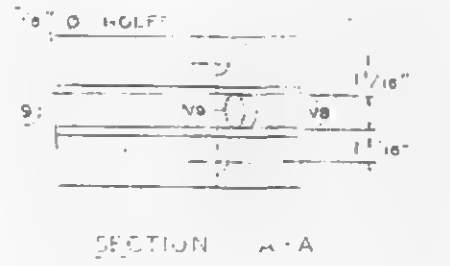
BOTTOM CHORD = 26'-4"

NOTE 2
ALL DETAILS & ELEVATIONS SHOWN
FOR C32T23 TRUSSES ARE APP-
LICABLE TO C32T23-R TRUSSES WITH
CHANNEL & PLATE PLACED ON OPP.
HAND.
CH-2L TO BE USED WITH C32T23-L
CH-2R " " " " C32T23-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

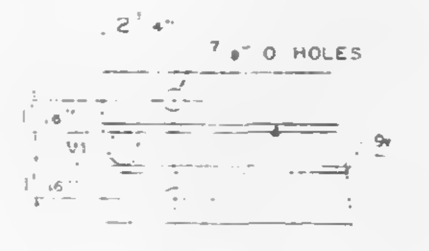


EL END (CORE END)

BOTTOM CHORD = 26'-4"



SECTION A-A



SECTION B-B

## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 3/8" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 4" |
| OVERALL LENGTH | 35'-8" | ± 3/8" |
| WEB DEPTH | 31⅞" | ± 1/4" |
| CL DIMENSIONS | — | ± 3/8" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 10-4-68 | GENERAL | T.M.C |

REF DRWG.
| | |
|---|---|
| 7-ABI-22 | 8-13-68 |
| 7-AB-52 | 2-15-68 |
| 7-ABI-53 | 7-22-68 |
| 7-ABI-54 | 8-15-68 |
| 7-54-55-56 | 8-15-68 |
| SA-124 | 8-1-68 |

X
10/15/68 SL

PAINT: LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF (SEE NOTE 1) | FILLER C/C "M" HOLE NO | DIA | | CONNECTION FILLERS NO | | LENGTH | CHORD PLATE TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | REINF. ANGLE (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH. | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T23-L | 6 | A242 | 2"x1½"x.25 | 35'-8" | 7 | A242 | 2"x1½"x.25 | 26'-4" | 3<br>3B | A242<br>A242 | .95<br>.98 | 40'-8¼"<br>10'-7⅝" | 6 2K @ 3'-4" = 21'-8"<br>1¾ K = 5'-9" | 5 | .98 | 35'-2¾" | — | — | — | | | | P8 | A36 | 3 | 4½x39 | 5½" | RA1 | A242 | 2"x1½"x.25 | 7½" | | |

| COLUMN END | Es END | TRUSS DESIGNATION | MK. | TYPE STEEL | CHORD SIZE | NO. | LENGTH | | MK | TYPE STEEL | DIA | | | MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V9 TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | CHANNEL MK | TYPE STEEL | CHANNEL SIZE | NOTE NO. 2 LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T23-L | 9 | A242 | 2"x1½"x.25 | 2 | 10'-4½" | 5'-4¼" | DS 3B | A242 | .98 | 2 | 6¾" | 2 | A242 | .98 | 10½" | A242 | .98 | 8'-3⅞" | — | — | — | CH2L<br>CH2R | A36<br>A36 | 10 ⊏ 30<br>10 ⊏ 30 | 10'-9"<br>10'-9" | CP14 | A36 | ~~4½x.75~~ 3x.25 | 4'-5½" |

CHECK DIMENSION FOR FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 12'-10½" | 26'-2½" | — | — | 7'-0½" |

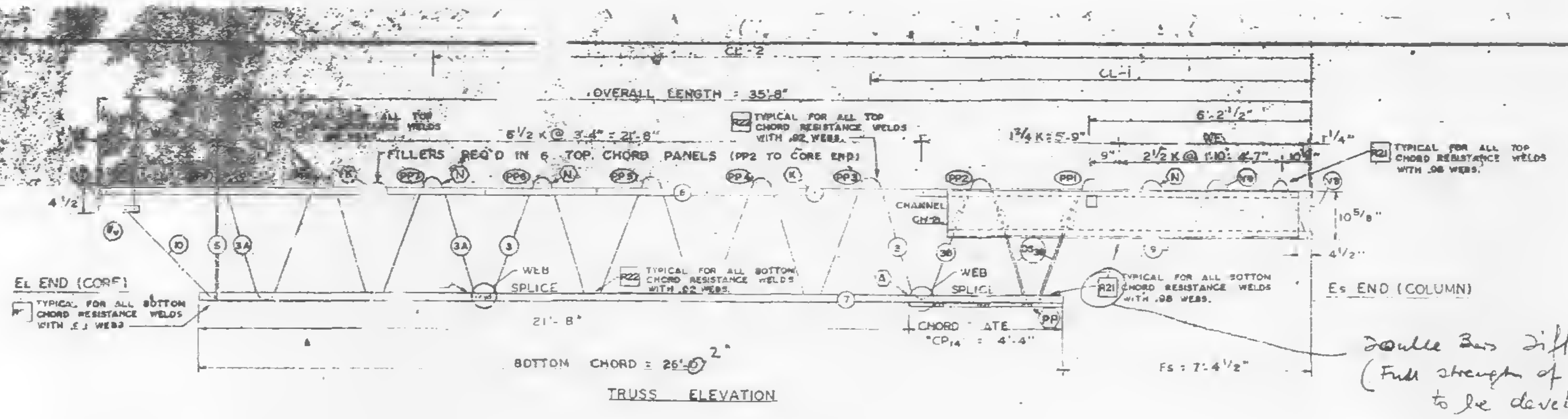
| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLE MK. | TYPE STEEL | SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | END TYPE STEEL | DIA. | LENGTH | STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T23-L | 9V | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | 10 | A242 | .98 | 3'-6¼" | 5 | A242 | .98 | 2'-4⅞" | A242 | .98 | 4⅜" | A242 | .98 | 7⅜" | — | | — | — | — | — | — | — | — | — | — | — |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T23-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A B

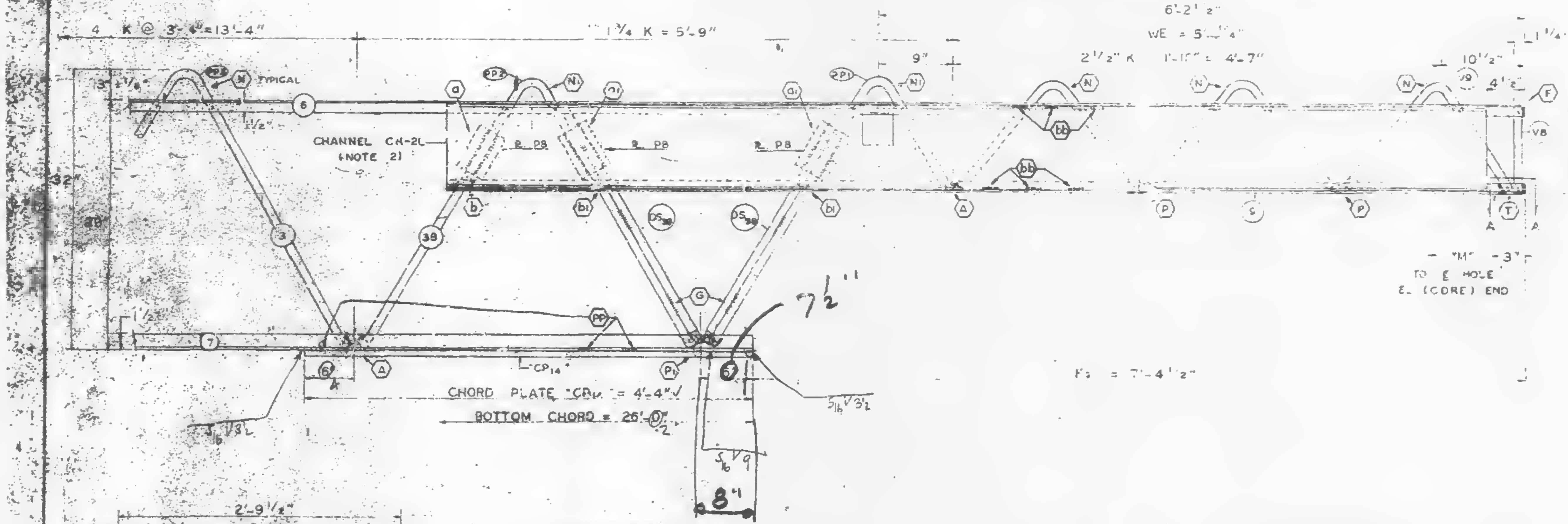
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON
DESIGN DRAWING NO 7-ABI-22
APPROVED FOR FAB BY
DRAWN BY Luck
DATE SEPT. 6, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR
CHECKED BY: T.M.CHURA
DATE SEPT. 9, 1968
IN CHARGE OF PROD. DEV.
DETAILED BY
FABRICATION CONT. NO. WTC 221
SHEET NO ST 223-L

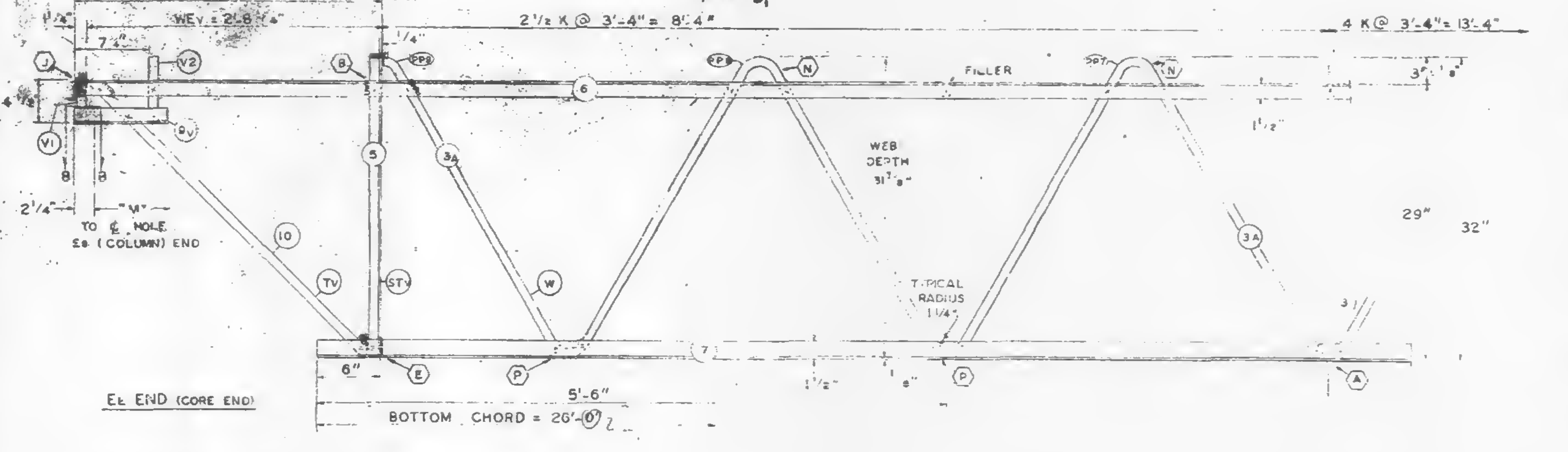
CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie., Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R5


CL-2
CL-1
OVERALL LENGTH = 35'-8"
6½ K @ 3'-4" = 21'-8"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH .92 WEBS.
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO CORE END)
6'-2½"
1¾ K = 5'-9"
2½ K @ 3'-4" = 8'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH .98 WEBS.
4½"
10⅝"
CHANNEL CH-2L
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .92 WEBS.
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .98 WEBS.
EL END (CORE)
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .E.J WEBS
ES END (COLUMN)
21'-8"
CHORD PLATE "CP14" = 4'-4"
BOTTOM CHORD = 26'-0" 2"
Fs = 7'-4½"

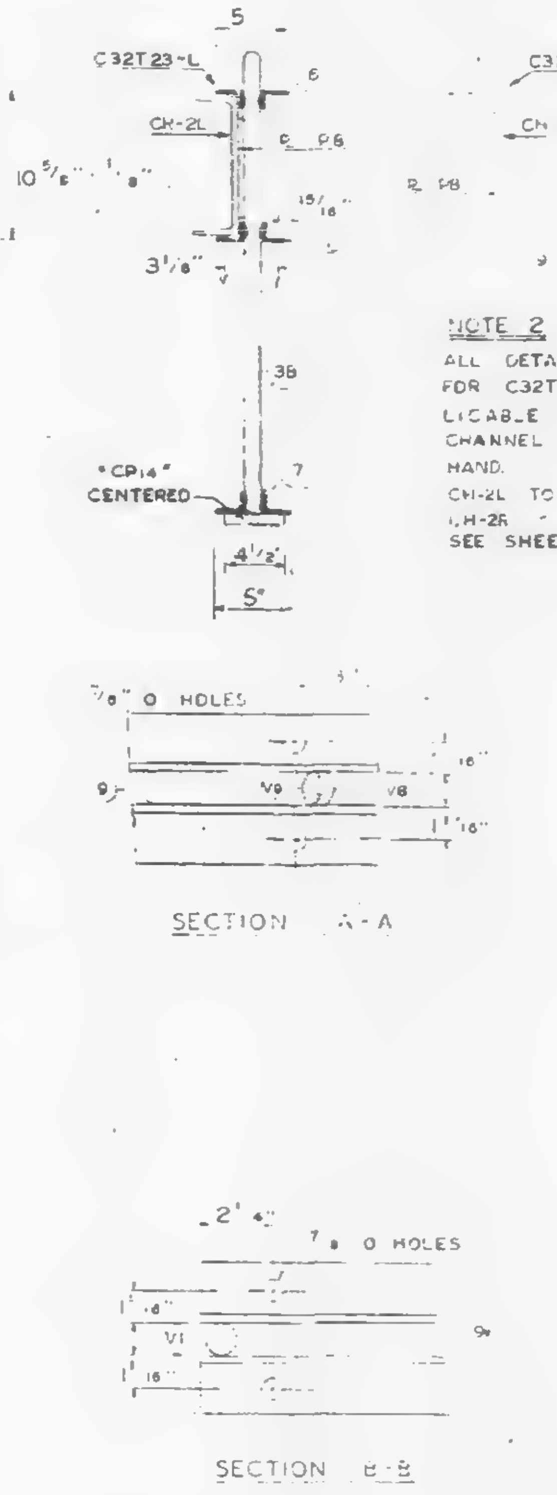
TRUSS ELEVATION

Double Bars Different R-values! (Full strength of both web bars to be developed)





EL END (CORE END)



C32T23-R

CH-2R

SECTION A-A

SECTION B-B

NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T23-L TRUSSES ARE APPLICABLE TO C32T23-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP. HAND.
CH-2L TO BE USED WITH C32T23-L
CH-2R " " " " C32T23-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| FABRICATION REQUIREMENTS | DESIGN | [illegible]ERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | 3/8" |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | [illegible] 4" | [illegible] |
| OVERALL LENGTH | 35'-8" | [illegible] 8" |
| WEB DEPTH | [illegible] | ±1 |
| CL DIMENSIONS | — | [illegible] 8" |

REF. DRWG.
7-ABI-22 8-13-68
7-ABI-52 2-15-68
7-ABI-53 7-22-68
7-ABI-54 8-15-68
7-[illegible]64-53-56 8-15-68
SA-124 8-1-68

PAINT LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK. | TYPE STEEL | DIA. | LENGTH | NO OF "K" SEE NOTE 1 | FILLER NO. | DIA. | "M" C/C HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T23-L | 6 | A242 | 2"x 1½" x .25 | 35'-8" | 7 | A242 | 2"x 1½" x .25 | 26'-0"<br>2" | 3<br>3A<br>3B | A242<br>A242<br>A242 | .92<br>.98<br>.98 | 24'-11"<br>15'-6 7/8"<br>10'-7 7/8" | 4 K@ 3'-4" = 13'-4"<br>2½ K@ 3'-4" = 8'-4"<br>1¾ K@ 3'-4" = 5'-9" | 6 | .92 | 35'-2¾" | — | — | — | | | | P8 | A36 | 3 | 4"x 4"<br>4½ .59 | 8"<br>5½ | | |

| COLUMN END | ES END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS. | END STIFFENER MK. V8 TYPE STEEL | DIA | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGT | MK. V10 DIA. | LENGTH | CHANNEL MK. | TYPE STEEL | CHANNEL SIZE | LENGTH (NOTE NO. 2) | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T23-L | ~~9~~ | ~~A242~~ | ~~2x1½x.25~~ | ~~2~~ | ~~10'-4⅞"~~ | 5'-4¼" | DS 3B | A242 | .98 | 2'-6¾" | 2 | A242 | .98 | 10½" | A242 | .98 | 8'-3⅞" | — | — | CH2L<br>CH2R | A36<br>A36 | 10 [ 30<br>10 [ 30 | 10'-0"<br>10'-0" | CP 14 | A36 | 4½ x.75<br>4¼ | 4'-4" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEV | DIAGONAL "TV" STRUT MK. | TYPE STEEL | DIA. | LENGTH | VERTICAL "STV" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T23-L | 9Y | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | 10 | A242 | .98 | 3'-6¼" | 5 | A242 | .98 | 2'-7⅞" | A242 | .98 | 4⅜" | A242 | .98 | 7⅜" | — | — | — | — | — | — | — | — | — | — | — | — |

CHECK DIMENSION FOR FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 26'-2½" | — | — | 7'-4½" |

10/1/68

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T23-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

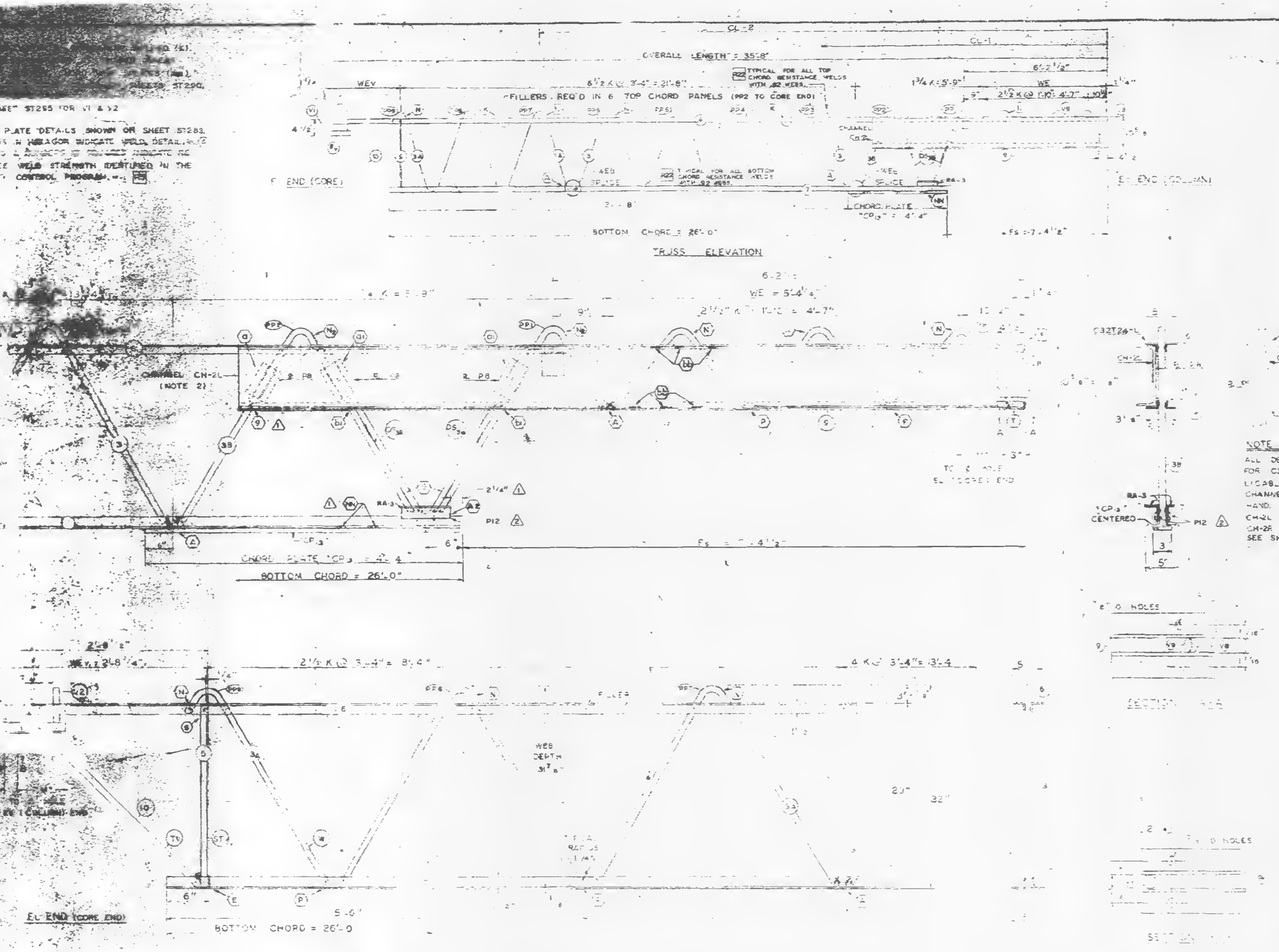
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-ABI-22 | PLATE |
| APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. | DATE | DRAWN BY [illegible] DATE SEPT. 6, 1968 | |
| APPROVED FOR FABRICATION BY ______ FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA DATE SEPT. 9, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO W.T.C. 221 | SHEET NO. ST 223-L |

SHEET ST265 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST282.
[illegible] IN HEXAGON INDICATE WELD DETAIL [illegible]
LETTERS & [illegible] INDICATE [illegible]
[illegible] WELD STRENGTH [illegible] IN THE
QUALITY CONTROL PROGRAM [illegible]

| FABRICATION | | |
|---|---|---|
| CAMBER AT MIDSPAN | | [illegible] |
| DESIGN DEPTH | | [illegible] |
| PANEL "K" | 3'-4" | |
| OVERALL LENGTH | 35'-8" | [illegible] |
| WEB DEPTH | [illegible] | [illegible] |
| CL DIMENSIONS | | [illegible] |



NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T24-L TRUSSES ARE APPLICABLE TO C32T24-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP. HAND.
CH-2L TO BE USED WITH C32T24-L
CH-2R " " " " C32T24-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| 2 | 12-26-68 | AS NOTED | [illegible] |
| 1 | 11-7-68 | AS NOTED | [illegible] |

2 REF. DRWG
7-ABI-22 10-4-68
7-ABI-52 2-15-68
7-ABI-53 7-22-68
7-ABI-54 11-25-68
7-A64-53-56 10-4-68
5A-124 10-11-68

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | SIZE | LENGTH | MAIN WEB "W" MK. | TYPE STEEL | DIA | LENGTH | NO OF K SEE NOTE | FILLER MK. | DIA | LENGTH | CONNECTION FILLER | | CHORD PLATE | | [illegible] PLATES MK. | TYPE STEEL | [illegible] | [illegible] | LENGTH | SPEC PLATES (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH. | REINF ANGLE (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T24-L | 6 | A242 | 2"x1½"x.25 | 35'-8" | [illegible] | A242 | 2"x1½"x.25 | 26'-0" | 3<br>3A<br>3B | A242<br>A242<br>A242 | .92<br>.98<br>.92 | 24-11"<br>[illegible]<br>10-7⅞" | 4 K @ 3'-4" = 13'-4"<br>2 K @ 3'-4" = 9'-4"<br>[illegible] | 5 | .92 | 35'-2¾" | — | — | — | — | P8 | [illegible] | 3 | 4½x.38 | 5½" | P12 | A36 | 1"x⅝" | 7½" | RA4 | A242 | 2"x1½"x.25 | 7½" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | MK | TYPE STEEL | DIA | LENGTH | PCS | END STIFFENER MK. V8 TYPE STEEL | DIA | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | STEEL | | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | E | C32T24-L | [illegible] | A242 | 2"x1½"x.25 | 2 | 10'-4½" | 5'-4¼" | D5 | A242 | .92 | 2'-6¾" | 2 | A242 | .92 | 10½" | A242 | .92 | 8'-3⅞" | — | — | — | CH2L<br>CH2R | A36<br>A36 | 10 x 30<br>10 x 30 | 10'-0<br>10'-0" | [illegible] | A36 | 3 x .25 | 4'-4" |

| CHANNEL DIMENSIONS FOR [illegible] LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 2'-10½" | 25'-2½" | — | — | 7'-4½" |

| CORE END | Es END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "TV" STRUT MK. | TYPE STEEL | DIA | LENGTH | VERTICAL "SV" STRUT MK. | TYPE STEEL | DIA | LENGTH | END STIFFENER MK. [illegible] TYPE STEEL | DIA | LENGTH | MK. 2 TYPE STEEL | DIA | LENGTH | MK. 4 TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T24-L | 8V | A242 | 2"x1½"x.25 | 10" | 2'-5¼" | 10 | A242 | .98 | 3'-6¼" | 5 | A242 | .98 | 2'-4 6" | A242 | .98 | 4⅜" | A242 | .98 | 7⅝" | — | — | — | — | — | — | — | — | — | — | — | — |

PAINT: LACLEDE ELECTROCOAT
REC. NO. 1000

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

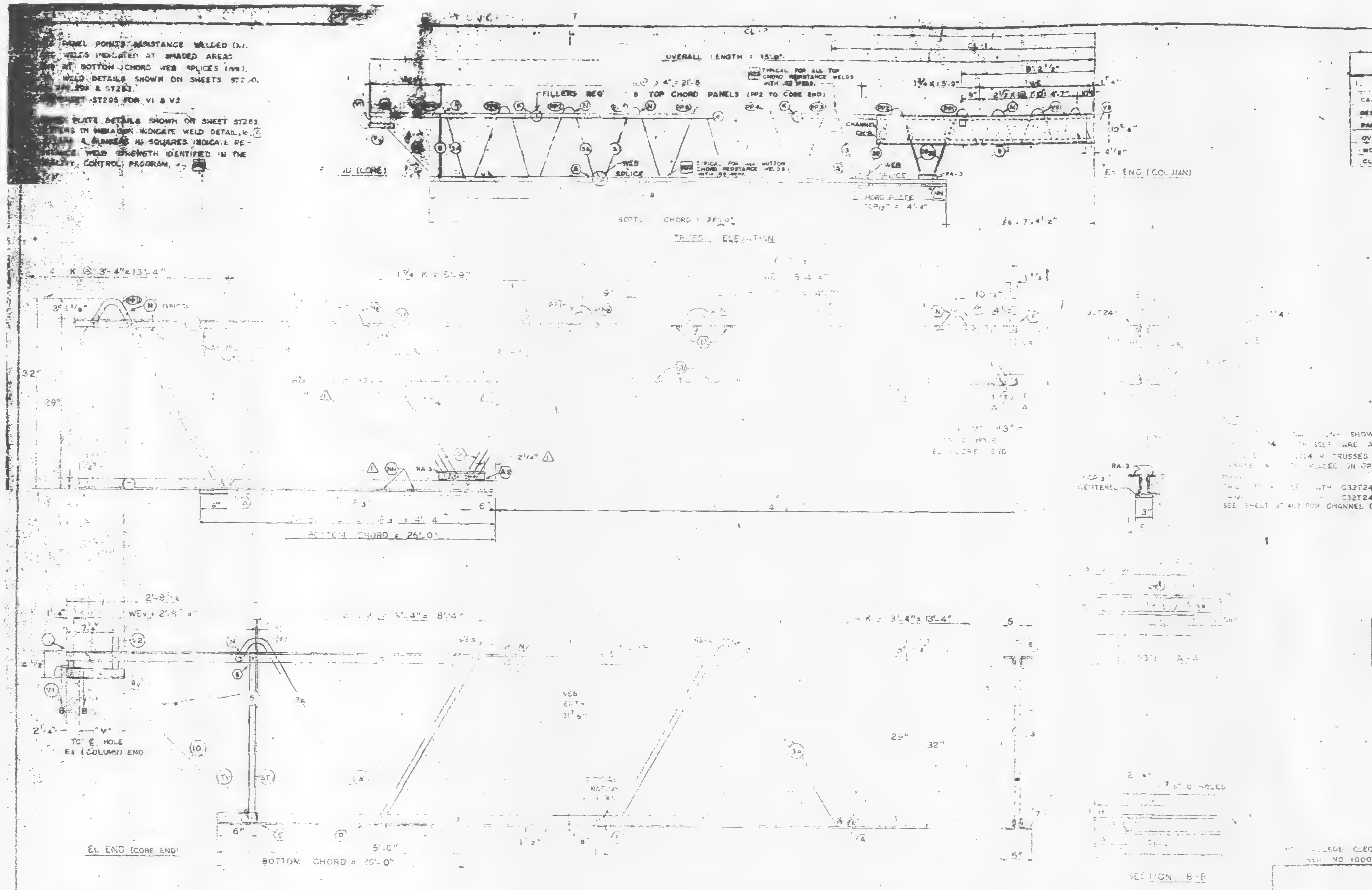
FLOOR TRUSS C32T24-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-ABI-22 | PLATE |
| APPROVED FOR FABRICATION BY James White FOR PONYA DATE 1/13/69 | DRAWN BY: [illegible] DATE SEPT 23, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY: T.M. CHIURA DATE SEPT 24, 1968 | IN CHARGE OF PROD. [illegible] |
| DETAILED BY A. CARL [illegible] | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 224 |

PANEL POINTS RESISTANCE WELDED (X).
WELDS INDICATED AT SHADED AREAS
AT BOTTOM CHORD WEB SPLICES (mm).
WELD DETAILS SHOWN ON SHEETS ST2[illegible]
[illegible] & ST283.
ST285 FOR V1 & V2

PLATE DETAILS SHOWN ON SHEET ST283.
[illegible] IN HEXAGON INDICATE WELD DETAIL, ie. ④
[illegible] & NUMBERS IN SQUARES INDICATE RE-
[illegible] WELD STRENGTH IDENTIFIED IN THE
[illegible] CONTROL PROGRAM, ie. ▨



| FABRICATION REQUIRE[illegible] | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 5/[illegible] | [illegible] |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | [illegible] |
| OVERALL LENGTH | [illegible] | [illegible] |
| WEB DEPTH | [illegible] | [illegible] |
| CL DIMENSIONS | [illegible] | [illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| △1 | 11-7-68 | AS NOTED | G.O.C. |

△1 REF. DRWG.
7-ABI-22 10-4-68
7-ABI-52 2-15-68
7-ABI-53 7-22-68
7-ABI-[illegible] 10-4-68
7-[illegible]B4-5[illegible], 56 10-4-68
SA-124 10-11-68

[illegible] LACLEDE ELECTROCOAT
[illegible] NO 1000)

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | [illegible] HOLE | [illegible] | [illegible] PLATE | CHANNEL PLATES | | | | | TRUSS DATA | | REINF ANGLE (2 REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO OF "K" SEE NOTE 1 | NO. | DIA. | | | | MK | TYPE STEEL | PCS. | SIZE | LENGTH | | | MK | TYPE STEEL | SIZE | LGTH |
| C32T24-L | 6 | A242 | 2"x1 1/2"x.25 | 35'-8" | 7 | A242 | 2"x1 1/2"x.25 | 26'-0" | 3<br>3A<br>3B | A242<br>A242<br>A242 | .92<br>.98<br>.92 | 24'-11"<br>16'-0 1/4"<br>10'-7 5/8" | 4 K@ 3'-4"= 13'-4"<br>2 1/2 K@ 3'-4"= 8'-4"<br>1 3/4 K@ 3'-4"= 5'-9" | 6 | .92 | 35'-2 3/4" | — | — | P8 | A36 | 3 | 4 1/2x3/8 | 5 1/4" | | | RA4 | A242 | 2"x1 1/2"x.25 | 7 1/2" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | W.E | DOUBLE STRUT | | | | | END STIFFENER | | | | | | | | | CHANNEL | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK. V8 | | | MK. V9 | | | MK. V10 | | | | | | NOTE NO. 2 | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | PCS. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| | | C32T24-L | 9 | A242 | 2"x1 1/2"x.25 | 2 | 10'-4 1/2" | 5'-4 1/4" | 3S<br>3B | A242 | .92 | 2'-6 3/4" | 2 | A242 | .92 | 10 1/2" | A242 | .92 | 8'-3 7/8" | — | — | — | CH2<br>CH2A | A36<br>A36 | ⊏10 X 30<br>⊏10 X 30 | 10'-0<br>10'-0" | CP-13 | A36 | 3"x.25 | 4'-4" |

△1

| CHECK DIMENSION FOR FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH. | MK. | TYPE STEEL | DIA. | LENGTH | PCS |
| | | C32T24-L | 9V | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | .98 | 3'-6 3/4" | 5 | A242 | .98 | 2'-4 7/8" | A242 | .98 | 4 3/8" | A242 | .98 | 7 7/8" | — | — | — | — | — | — | — | — | — | — | — | — |

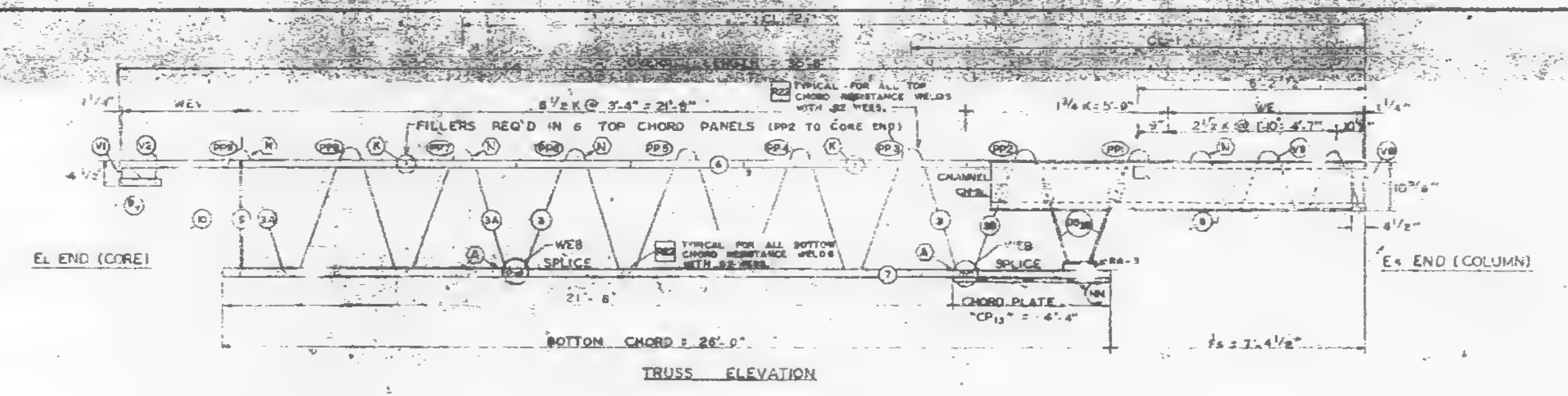
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T24-L . 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-ABI-22
PLATE [illegible]
APPROVED FOR FABRICATION [illegible] FOR P.O.N.Y.A. DATE 11/18/68
DRAWN BY [illegible]
DATE SEPT. 23, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY T.M.CHURA
DATE SEPT 24 1968
FABRICATOR CONT. NO. [illegible]
DETAILED BY: A [illegible]
W. O. [illegible]
SHEET NO. [illegible]

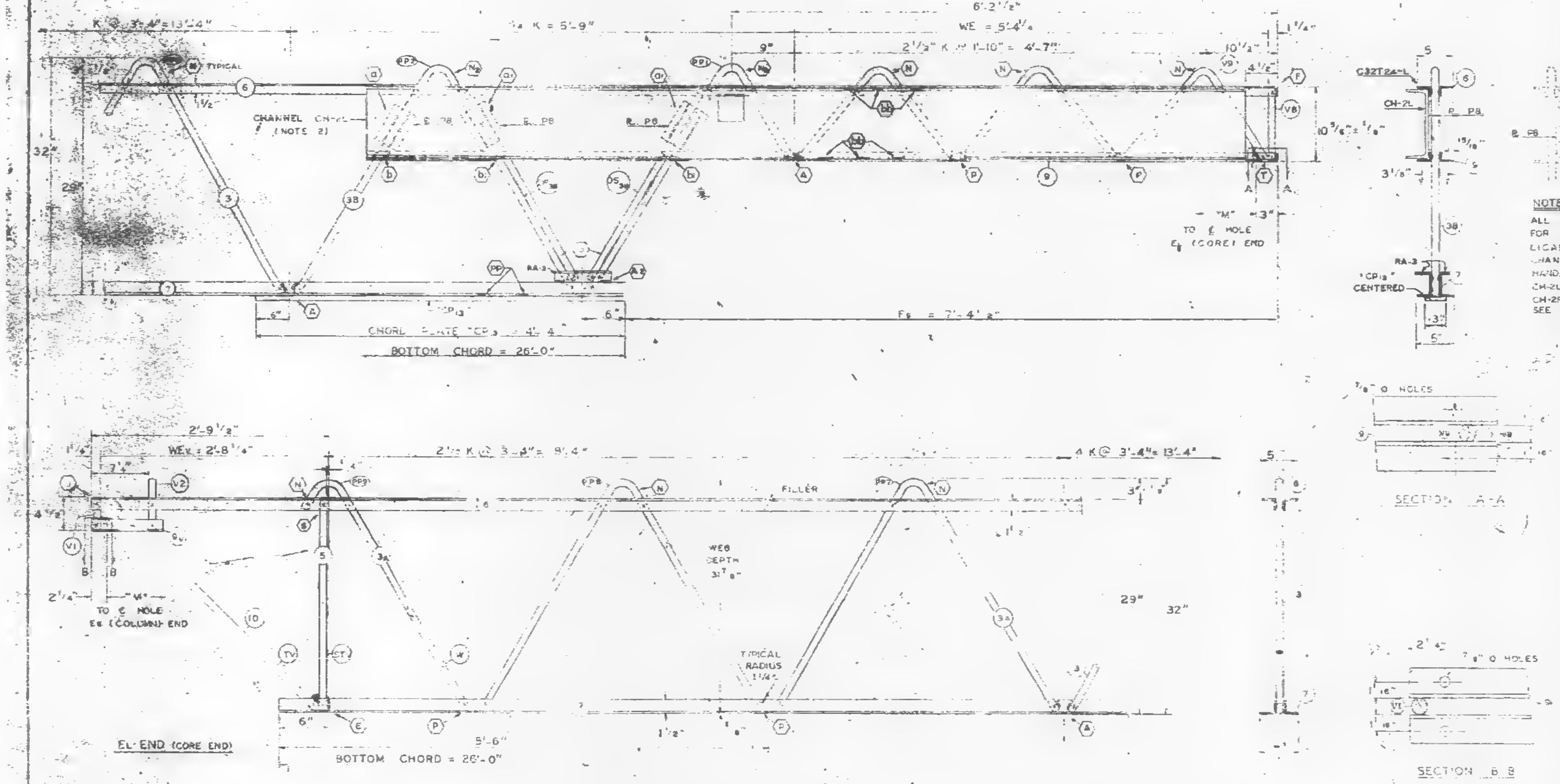
AT BOTTOM CHORD WEB SPLICES ([illegible]).
ALL WELD DETAILS SHOWN ON SHEETS ST290, [illegible] 292, 293 & ST283.
SEE SHEET ST295 FOR V1 & V2

CHORD PLATE DETAIL SHOWN ON SHEET ST283.
[illegible] (A)
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM [illegible]



8½ K @ 3'-4" = 28'-4"
FILLERS REQ'D IN 6 TOP CHORD PANELS (PP2 TO CORE END)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 52 WEBS
1¾ K @ 3'-4"
WE
CHANNEL
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 52 WEBS
21'-8"
CHORD PLATE "CP13" = 4'-4"
EL END (CORE)
E4 END (COLUMN)
BOTTOM CHORD = 26'-0"
Fs = 7'-4½"

TRUSS ELEVATION



NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T24-L TRUSSES ARE APPLICABLE TO C32T24-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP HAND.
CH-2L TO BE USED WITH C32T24-L
CH-2R " " " C32T24-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 5/16" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | — |
| CL DIMENSIONS | — | ± 3/8" |

REF DRWG
7-ABI-[illegible] 8-13-68
7-ABI-[illegible] 2-15-68
7-AB[illegible] 7-22-68
7-AB[illegible] 6-15-69
7-[illegible] 9-5-68
SA-124 8-1-68

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK. | TYPE STEEL | DIA. | LENGTH | NO. OF "K" SEE NOTE 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T24-L | 6 | A242 | 2"x 1½"x .25 | 35'-8" | 7 | A242 | 2"x 1½" x .25 | 26'-0" | 3A<br>3B | A242<br>A242 | .98<br>.92 | [illegible]<br>10'-7⅞" | 2½ K @ 3'-4" = 8'-4"<br>1¾ K @ 3'-4" = [illegible] |

| TRUSS DESIGNATION | FILLER NO. | FILLER DIA. | "M" C/C HOLE | CONNECTION FILLERS NO. | DIA. | LENGTH | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES MK. | TYPE STEEL | PCS | SIZE | LENGTH | TRUSS DATA |  | REINF ANGLE (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T24-L | 6 | .92 | 35'-2¾" | — | — | — |  |  |  |  | P8 | A36 | 3 | 4½x⅜ | 5½" |  |  | RA4 | A242 | 2"x1½"x.25 | 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS. | END STIFFENER MK. V8 TYPE STEEL | DIA. | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL NOTE NO. 2 MK. | TYPE STEEL | CHANNEL SIZE | LENGTH | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T24-L | 9 | A242 | 2x1½x.25 | [illegible] | [illegible] | 5'-4¼" | [illegible] | A242 | .92 | 2'-5¾" | 2 | A242 | .92 | 10½" | A242 | .92 | 6'-3⅞" | — | — | — | [illegible] | [illegible] | [illegible] | [illegible] | CP | A36 | 3"x.25 | 4'-4" |

CHECK DIMENSION FOR FAB

| LOCATION OF TRANS. TRUSS |  |  |  |  |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 28'-2½" | — | — | 7'-4½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "Tv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | VERTICAL "STV" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA. | LENGTH | MK. V2 TYPE STEEL | DIA. | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | C32T24-L | 9V | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | 10 | A242 | .98 | 3'-6¼" | 5 | A242 | .98 | 2'-4⅜" | A242 | .98 | 4⅜" | A242 | .98 | 7⅝" | — | — | — | — | — | — | — | — | — | — | — | — |

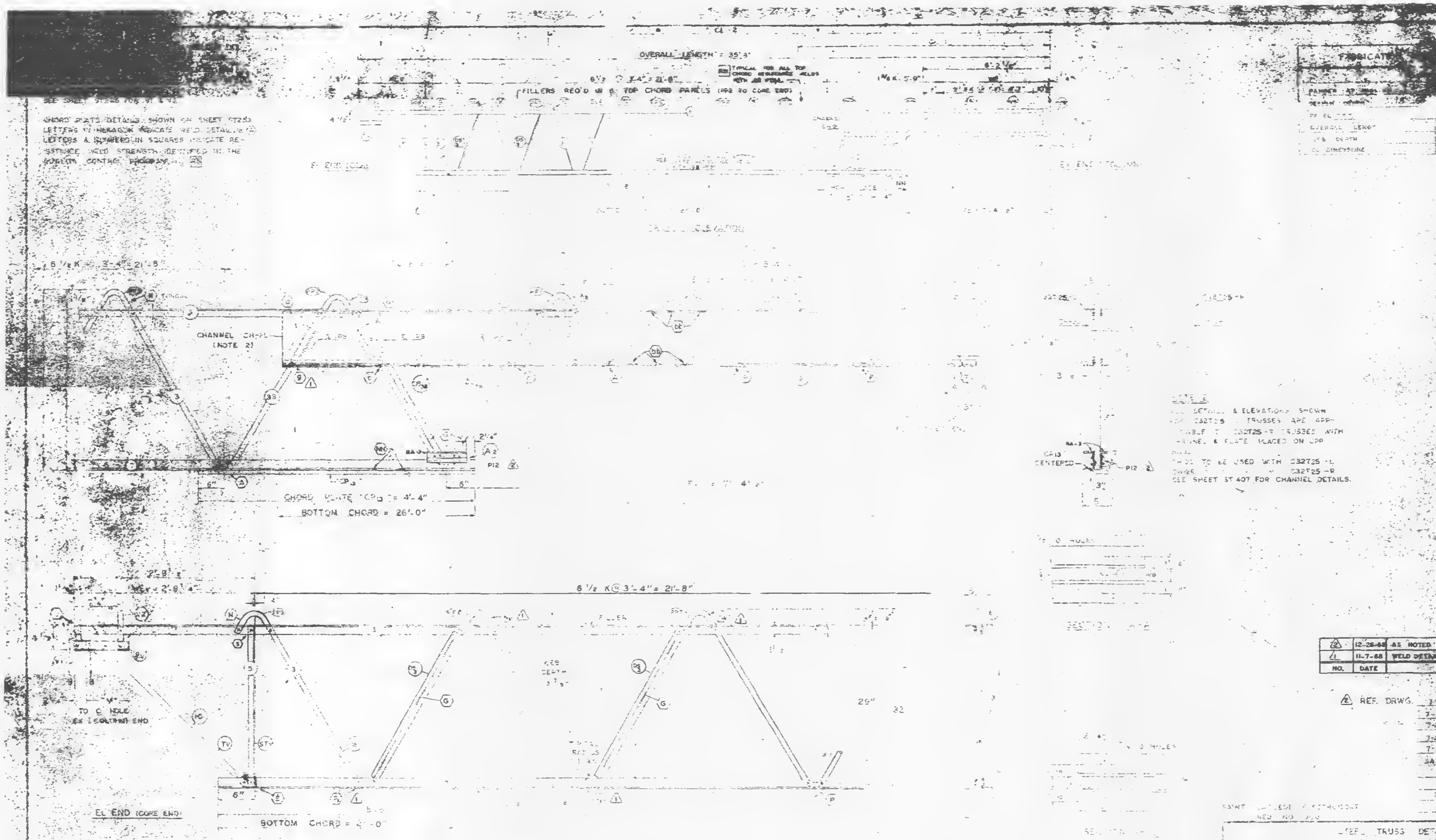
PAINT: LACLEDE ELECTROCOAT
RED NO. 0001

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T24-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A+B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS |  | DESIGN DRAWING NO. 7-ABI-22 | PLATE [illegible] |
| APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. | DATE 10/29/68 | DRAWN BY [illegible] DATE SEPT 23, 1968 |  |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR LACLEDE STEEL CO. | DATE | CHECKED BY: T.M. CHURA DATE SEPT 24, 1968 | IN CHARGE OF PROG. DEV. |
| DETAILED BY: A. CARL WEBER |  | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 224-L |



CHORD PLATS DETAILS SHOWN ON SHEET ST253.
LETTERS IN HEXAGON INDICATE WELD DETAIL (A)
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. RS

NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T25-L TRUSSES ARE APPLICABLE TO C32T25-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP HAND.
CH-25 TO BE USED WITH C32T25-L
CH-25 " " " " C32T25-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| NO. | DATE | REVISION | |
|---|---|---|---|
| 2 | 12-26-68 | AS NOTED | D.B.C. |
| 1 | 11-7-68 | WELD DETAILS REF DRWG. | B.B.C. |

2 REF. DRWG.
7-ABI-23
7-ABI-52
7-ABI-53
7-ABI-56 11-29-68
7-DB4-53-56 10-4-68
SA-124 10-11-68

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | [illegible] | SPEC. PLATES (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH | REINF. ANGLE (2 REQ'D) NO. | TYPE STEEL | SIZE | LGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T25-L | 8 | A242 | 2"x1½"x.25 | 35'-8" | 7 | A242 | 2"x1½"x.25 | 26'-0" | [illegible] | P12 | A36 | 1"x⅝" | 7½" | RA-3 | A242 | 2"x1½"x.25 | 7½" |

COLUMN END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | [illegible] |
|---|---|---|---|---|---|---|
| C32T25-L | 9 | A242 | 2"x1½"x.25 | 8 | 10'-4½" | A242 .58 2'-6" 2 A242 .58 10'-2" A242 .95 |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEB | DIAGONAL TYPE STEEL | [illegible] | VERTICAL TYPE STEEL | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|
| C32T25-L | 9 | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | A242 | .58 | A242 | .95 2'-4⅛" | DS3 A242 .75 2'-6¾" 2 |

SAINT LACLEDE ELECTRODE REQ NO. 300

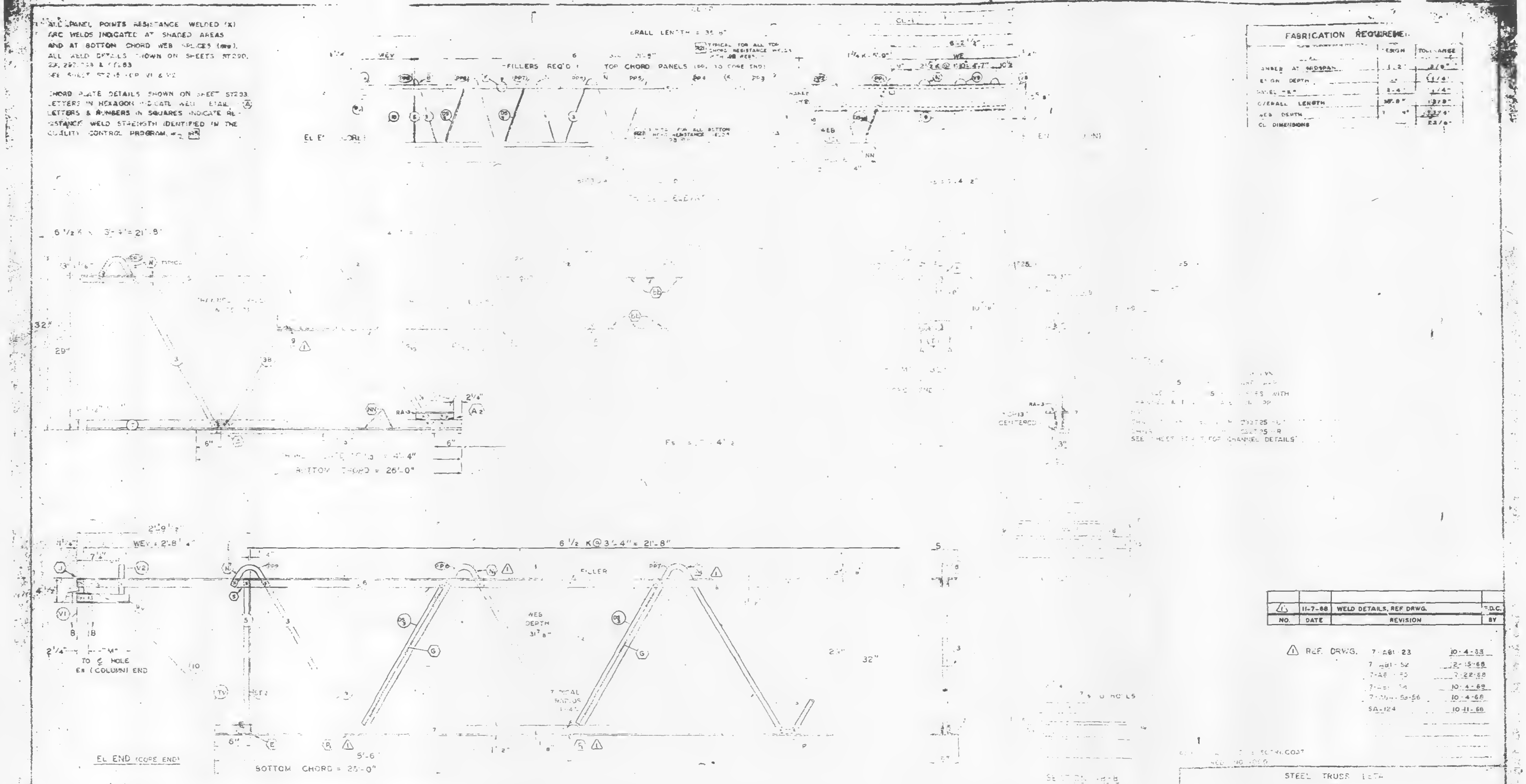
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T25 35'-8" OVERALL (SEE NOTE NO. 21)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION FOR P.N.Y.A. James White DATE 1/13/69
APPROVED FOR FABRICATION FOR FABRICATOR DATE
DETAILED BY LACLEDE WEBER
DESIGN DRAWING NO. 7-ABI-23
DRAWN BY D.B.
DATE SEPT 23, 1968
CHECKED BY T.HACKARA
DATE SEPT 2, 1968
FABRICATION CONT. NO.
221
PLATE

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▓).
ALL WELD DETAILS SHOWN ON SHEETS ST290,
2[illegible], 2[illegible], [illegible] & ST283
SEE SHEET ST2[illegible] FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST293.
LETTERS IN HEXAGON INDICATE WELD DETAIL Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM.



FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 1/2" | 3/8" |
| DESIGN DEPTH | 32" | 1/4" |
| PANEL "K" | 3'-4" | 1/4" |
| OVERALL LENGTH | 35'-9" | 3/8" |
| WEB DEPTH | 31 7/8" | 3/4" |
| CL DIMENSIONS | — | 3/8" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 11-7-68 | WELD DETAILS, REF DRWG. | T.D.C. |

⚠ REF. DRWG.

| | |
|---|---|
| 7-ABI-23 | 10-4-68 |
| 7-ABI-52 | 2-15-68 |
| 7-AB[illegible] | 7-22-68 |
| 7-AB[illegible] | 10-4-68 |
| 7-AB[illegible]-55-56 | 10-4-68 |
| SA-124 | 10-11-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA. | LENGTH | NO. OF "K" SEE NOTE 1 | FILLER NO. | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 3 | A242 | .98 | 40'-11 1/4" | 6 1/2 K @ 3'-4" = 21'-8" | | | |
| C32T25-L | 6 | A242 | 2"x1 1/2"x.25 | 35'-8" | 7 | A242 | 2"x1 1/2"x.25 | 26'-0" | 3? | A242 | .98 | 10'-7" | 1 3/4 K @ 3'-4" = 5'-9" | 6 | .98 | 35'-2 3/4" |

| CHAIR PLATES MK | TYPE STEEL | PCS | SIZE | LENGTH | TRUSS DATA | REINF. ANGLE (2 REQ'D) MK | TYPE STEEL | SIZE | LGTH |
|---|---|---|---|---|---|---|---|---|---|
| [illegible] | A36 | 3 | 4 1/2x.39 | 5 1/2" | | RA-3 | A242 | 2"x1 1/2"x.25 | 7 1/2" |

CHECK DIMENSIONS

| CL-1 | CL-2 |
|---|---|
| 12'-10 1/2" | 26'-2" |

| CORE END: EL END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | [illegible] | MK | TYPE STEEL | DIA. | LENGTH | VERTICAL STIFF STRUT MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T25-L | 8V | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | .98 | 3'-6 1/4" | 5 | A242 | .98 | 2'-4 7/8" | A242 | .98 | 4 3/8" | A242 | .98 | 3/8" | — | — | — | — | — | — | — | GS3 | A242 | .75 | 2'-6 3/4" | 2 |

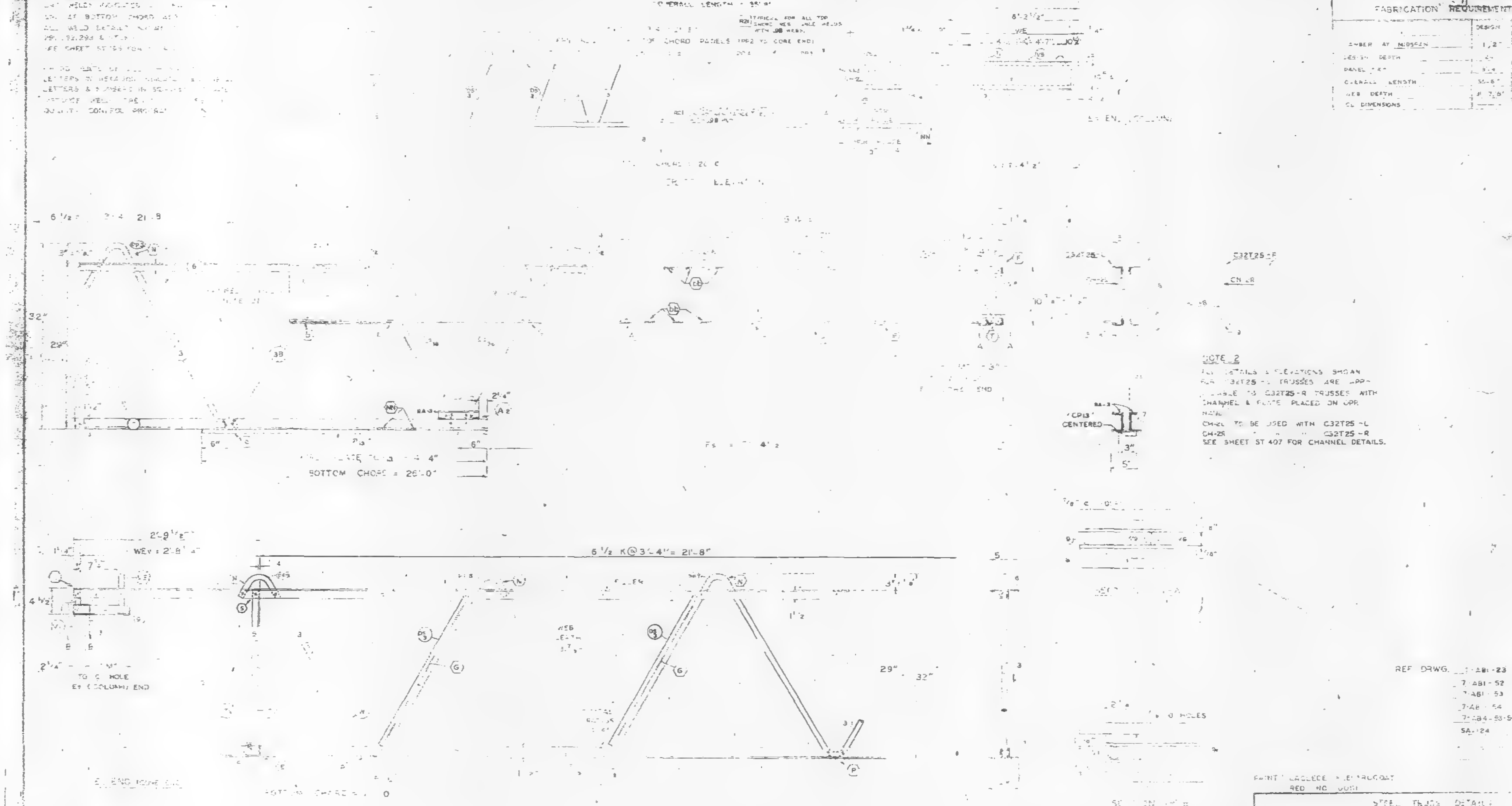
STEEL TRUSS DATA
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
C32T25-L 35'-9" OVERALL SEE NOTE NO. 2
CENTER TOWERS
LACLEDE STEEL COMPANY

DESIGN DRAWING 7-ABI-23
DRAWN BY: N.K.
DATE SEPT 23
DATE 11/18/68
APPROVED FOR FABRICATION FOR FABRICATOR
DATE
CHECKED BY: T.M. CHUPA
DATE SEPT 24, 1968
IN CHARGE OF PROD. DEV.
FABRICATION CONT NO. #LC 221
SHEET NO. ST 225
A. CARL WEBER

ALL PANEL POINTS [illegible] WELDED [illegible]
[illegible] WELDS [illegible]
[illegible] AT BOTTOM CHORD [illegible]
ALL WELD DETAILS [illegible]
[illegible] 92, 293 & [illegible]
SEE SHEET ST [illegible] FOR [illegible]

[illegible]
LETTERS IN HEXAGON [illegible]
LETTERS & NUMBERS IN SQUARE [illegible]
[illegible] WELD [illegible]
QUALITY CONTROL PROGRAM [illegible]

| FABRICATION REQUIREMENTS | DESIGN | [illegible]CE |
|---|---|---|
| CAMBER AT MIDSPAN | 1/2" | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL [illegible] | [illegible] | [illegible] |
| OVERALL LENGTH | 35'-8" | [illegible] |
| WEB DEPTH | [illegible] | |
| CL DIMENSIONS | — | [illegible] |



NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T25-L TRUSSES ARE APPLICABLE TO C32T25-R TRUSSES WITH CHANNEL & PLATE PLACED ON OPP. SIDE.
CH-2L TO BE USED WITH C32T25-L
CH-2R " " " C32T25-R
SEE SHEET ST 407 FOR CHANNEL DETAILS.

| REF. DRWG. | |
|---|---|
| 7-ABI-23 | 8-13-68 |
| 7-ABI-52 | 2-15-68 |
| 7-ABI-53 | 7-22-68 |
| 7-AB-54 | 8-15-68 |
| 7-AB4-55-56 | 8-15-68 |
| SA-24 | 8-[illegible]-68 |

PAINT: LACLEDE [illegible]
RED NO. [illegible]

| TRUSS DESIGNATION | MK. | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | SIZE | LENGTH | MAIN WEB | | | | CENTER [illegible] HOLE | | | CONNECTION FILLERS | | CHORD [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T25-L | 5 | A242 | 2"x[illegible]x.25 | 34'-8" | A242 | 2"x[illegible]x.25 | 26'-0" | A242 | 98 | 40"[illegible] | [illegible] | 5 | 98 | 35'-2 3/4" | — | — | — |

| MK. | TYPE STEEL | PCS | SIZE | LENGTH |
|---|---|---|---|---|
| F6 | A36 | 3 | 4 1/4x.38 | 5 1/2" |

| REINF. ANGLE (2 REQ'D) MK. | TYPE STEEL | SIZE | LGTH. |
|---|---|---|---|
| RA-9 | A242 | 2"x1 1/2"x.25 | 7 1/2" |

COLUMN END

| EL. END | TRUSS DESIGNATION | MK. | TYPE STEEL | CHORD SIZE | [illegible] | | MK. | TYPE STEEL | [illegible] | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T25-L | 6 | A242 | [illegible]x.25 | 2 | [illegible] | 5'-4 1/4" | D6 | A242 | .98 | [illegible] | A242 | 98 | 10 1/2" | A242 | 98 |

| MK. | TYPE STEEL | CHANNEL SIZE | LENGTH (NOTE NO. 2) | MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|
| CH2L | A36 | 10 [illegible] | 10'-0 | | | | |
| CH2R | A36 | 10 [illegible] | 10'-0" | F13 | A36 | 3 1/2x.75 | 4'-4" |

CHECK DIMENSION FOR [illegible]

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" |

CORE END

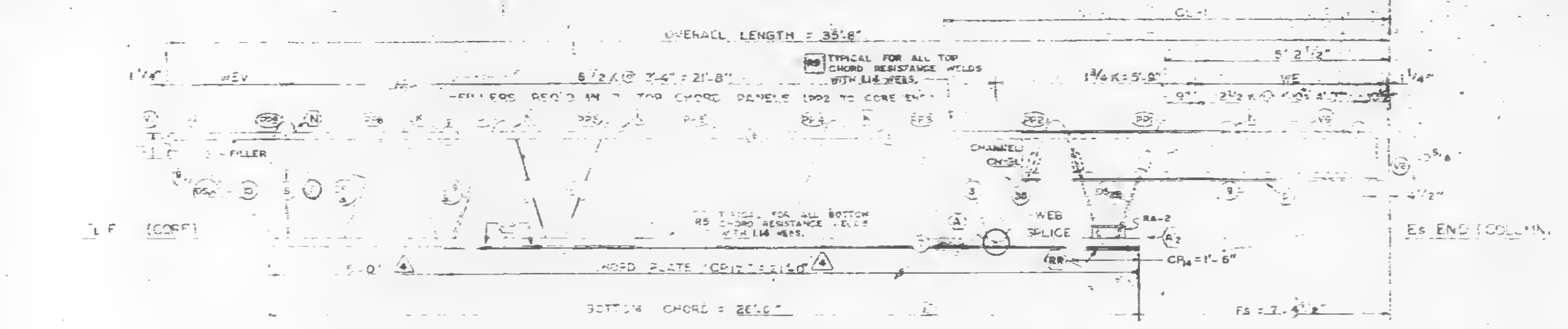
| EL. END | TRUSS DESIGNATION | SEATING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | [illegible] | DIAGONAL [illegible] STRUT MK. | TYPE STEEL | DIA. | LENGTH | VERTICAL [illegible] STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. | TYPE STEEL | DIA. | LENGTH | MK. 12 TYPE STEEL | DIA. | LENGTH | MK. 14 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T25-L | 9 | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | .98 | 3'-5 4"[illegible] | | A242 | 98 | 2'-4 1/8" | | A242 | 98 | 4 [illegible] | A242 | 98 | 7 3/8" | — | — | — | | — | — | — | D5 | A242 | .75 | 2'-6 3/4" | 2 |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY
FLOOR TRUSS C32T25-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

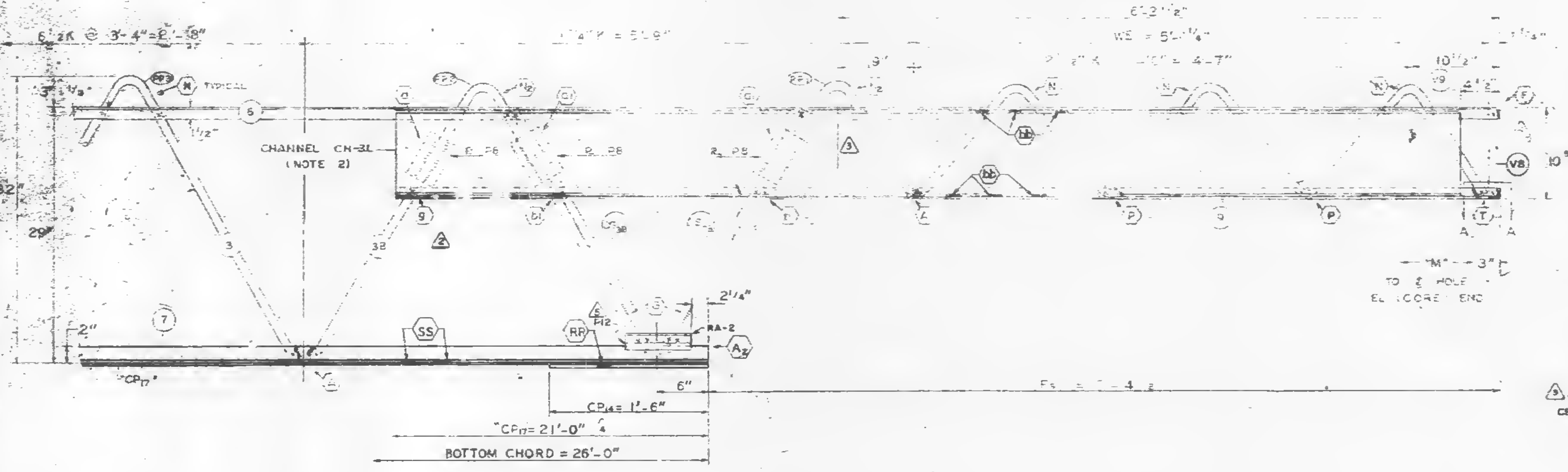
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-ABI-23
APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. DATE 10/29/68
DRAWN BY: [illegible] DATE SEPT 23, 1968
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE —
CHECKED BY: T.M.CH[illegible] DATE SEPT 24, 1968
[illegible] CHARGE OF PROD. [illegible]
DETAILED BY A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 225

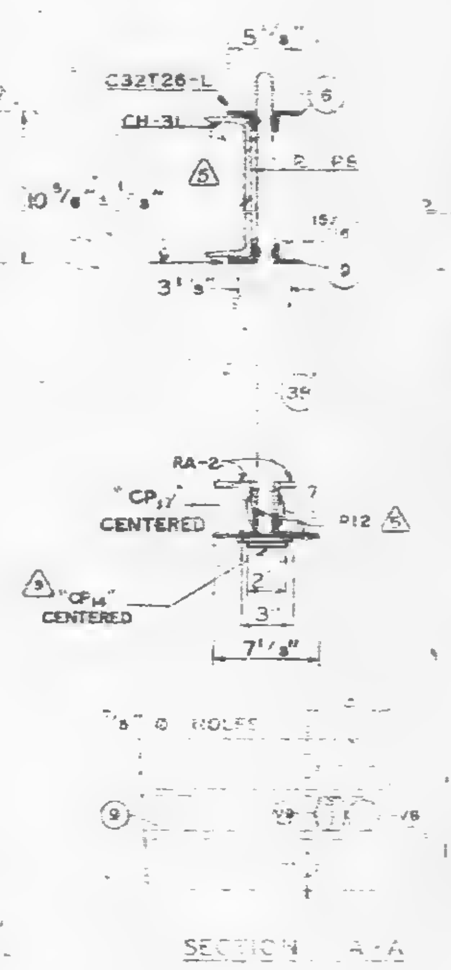
ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES.
ALL WELD DETAILS SHOWN ON SHEETS ST290, 291, 292, 293 & ST283.
SEE SHEET ST295 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL.
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. R5



TRUSS ELEVATION

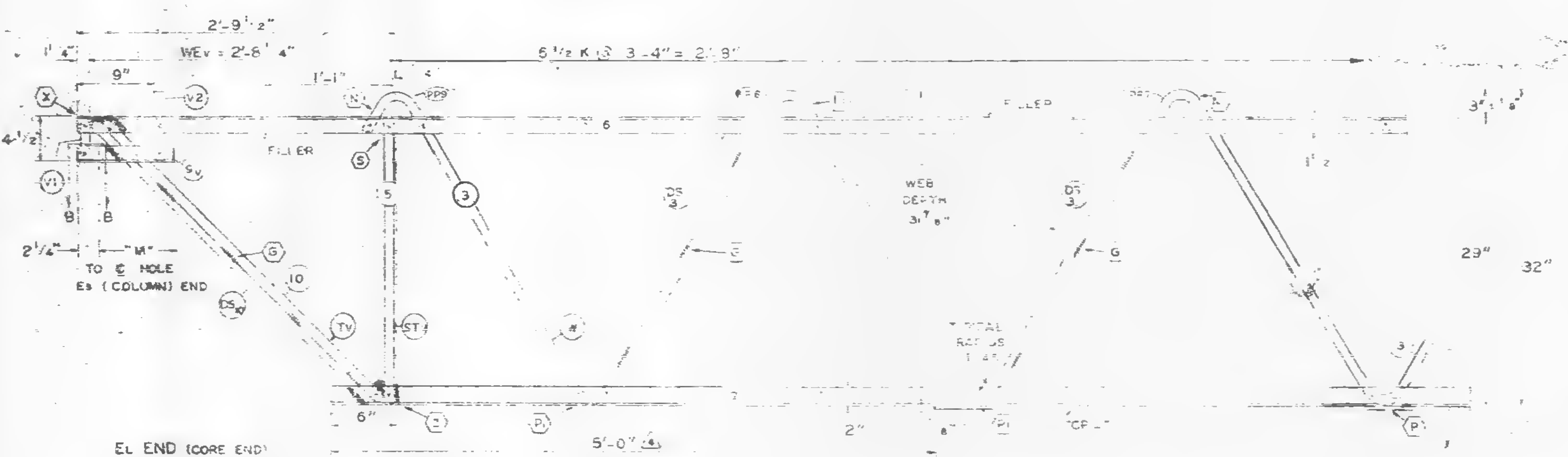




SECTION A-A

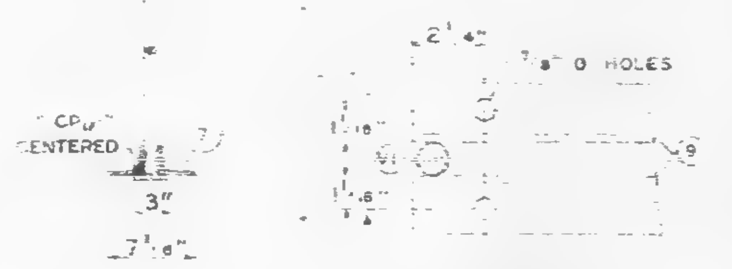
NOTE 2 3
ALL DETAILS & ELEVATIONS SHOWN FOR C32T26-L TRUSSES ARE APPLICABLE TO C32T26-R, C32T26LX & C32T2-RX TRUSSES, AS NOTED.
CHANNEL CH2L TO BE USED WITH C32T26LX
CH3L C32T26L
CH2R C32T26R
CH3R C32T26RX
SEE ST407 FOR CHANNEL DETAILS

| NO | DATE | REVISION |
|---|---|---|
| 5 | 12-21-[illegible] | AS NOTED |
| 4 | 12-6-[illegible] | AS NOTED |
| 3 | [illegible] | AS NOTED |
| 2 | [illegible]-7-[illegible] | AS NOTED |
| 1 | [illegible] | AS NOTED |



EL END (CORE END)

BOTTOM CHORD = 26'-0"



SECTION B-B

PAINT: LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | | SPEC PLATES (2 REQ'D) | | | | CHORD PLATE | | | | CHANNEL PLATES | | | | | CHANNEL ANGLE | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF ... SEE NOTE | NO | DIA | | MK | TYPE STEEL | SIZE | LGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | PCS | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T26-L | 6 | A242 | 2"x1½"x.37 | 35'-6" | 7 | A36 | 3"x2"x.33 | 26'-0" | 5<br>38 | A242<br>A242 | 1.14<br>1.14 | 40'-11¼"<br>10'-7⅝" | 6½ K @ 3'-4" = 21'-8"<br>1¾ K @ 3'-4" = 5'-9" | 7 | 1.14 | 35'-2¾" | P12 | A36 | 1"x⅜" | 7½" | CP17 | A36 | 3x¼ | 21'-0" | P8 | A36 | 3 | 4½x⅜ | [illegible] | | | | | |

| COLUMN END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | | END STIFFENER MK V8 | | | MK V9 | | | | | | CHANNEL NOTE NO. 2 | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Es. END | | MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | PCS | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| | C32T26-L | 8 | A242 | [illegible] | 2 | 10'-4½" | 5'-4¼" | DS 38 | A242 | 1.14 | 2'-6¾" | 2 | A242 | 1.14 | 10½" | A242 | 1.14 | 6'-3⅞" | | | | [illegible] | A36 | 10 280 | 10'-0" | CP 14 | A36 | 2x⅜" | 1'-6" |

| CHECK DIMENSION FOR FAB | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10½" | 26'-2½" | — | — | 7'-4½" |

| CORE END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "TV" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | DOUBLE STRUT | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EL END | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | PCS | TYPE STEEL | DIA | LENGTH | MK |
| | C32T26-L | 9V | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | 10 | A242 | 1.14 | 3'-6¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅝" | — | — | — | DS 5 | A242 | .92 | 2'-6¾" | 2 | A242 | .92 | 3'-6¼" | DS 10 |

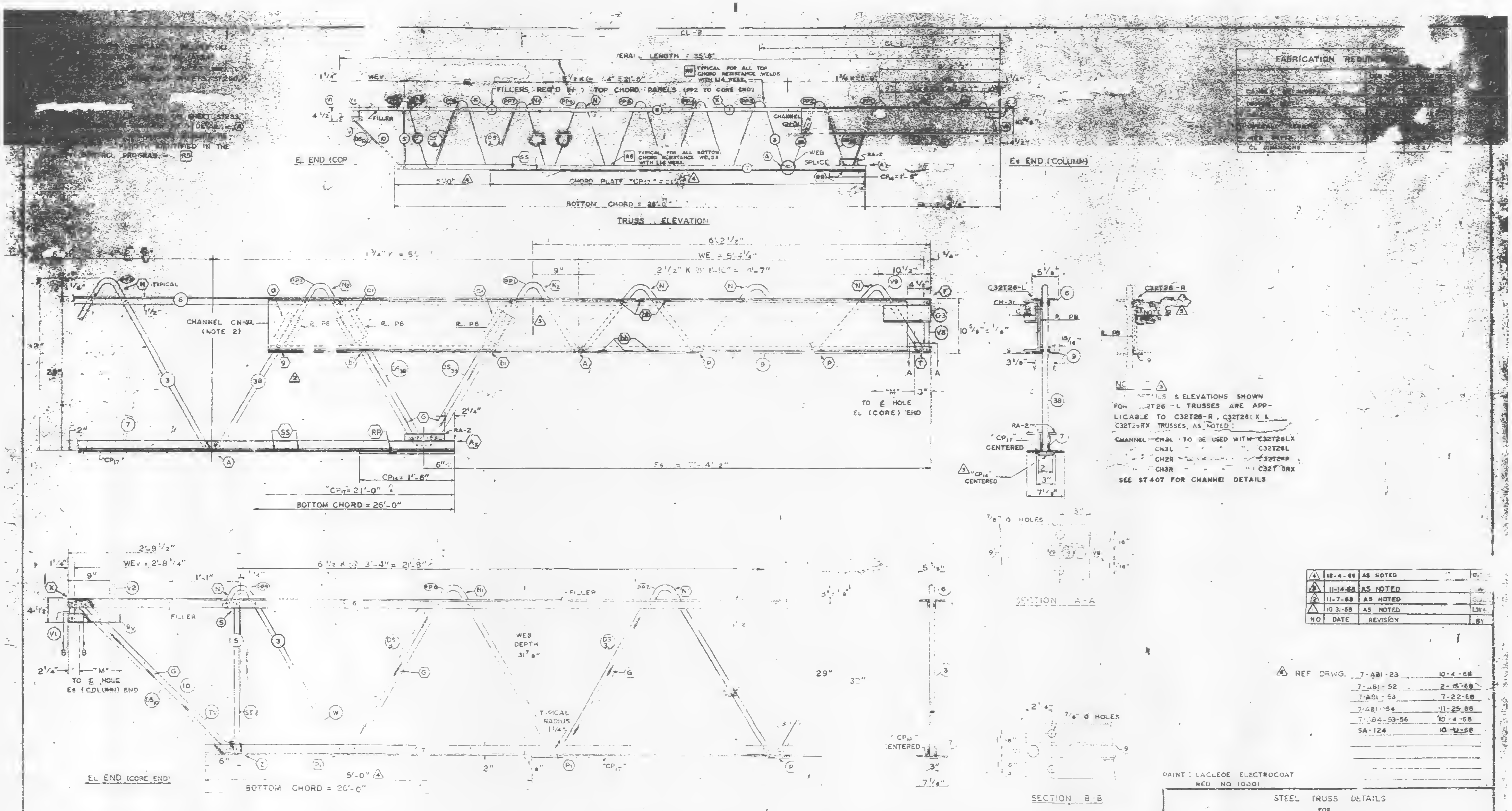
| REINF ANGLES | | | |
|---|---|---|---|
| MK | TYPE STEEL | SIZE | LENGTH |
| [illegible] | A36 | 3"x2"x.32" | 7½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER – W.T.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T26-L 35'-8" OVERALL SEE NOTE
WORLD TRADE CENTER TOWERS

FABRICATION BY: LACLEDE STEEL [illegible]
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White
APPROVED FOR FABRICATION FOR FABRICATOR
BY LACLEDE STEEL CO.
DETAILED BY A.

FABRICATION
CAMBER AT MIDSPAN
DESIGN DEPTH
PANEL "K"
OVERALL LENGTH 35'-8"
WEB DEPTH
COL. DIMENSIONS



NOTE 2 △3
DETAILS & ELEVATIONS SHOWN FOR C32T26-L TRUSSES ARE APPLICABLE TO C32T26-R, C32T26LX & C32T26RX TRUSSES, AS NOTED:

CHANNEL CH2L TO BE USED WITH C32T26LX
CH3L " " " " C32T26L
CH2R " " " " C32T26R
CH3R " " " " C32T26RX

SEE ST 407 FOR CHANNEL DETAILS

| NO | DATE | REVISION | BY |
|---|---|---|---|
| △4 | 12-4-68 | AS NOTED | G. |
| △3 | 11-14-68 | AS NOTED | [illegible] |
| △2 | 11-7-68 | AS NOTED | G. |
| △1 | 10-31-68 | AS NOTED | L.W.H. |

△4 REF DRWG.

| | |
|---|---|
| 7-ABI-23 | 10-4-68 |
| 7-ABI-52 | 2-15-68 |
| 7-ABI-53 | 7-22-68 |
| 7-ABI-54 | 11-25-68 |
| 7-AB4-53-56 | 10-4-68 |
| SA-124 | 10-12-68 |

PAINT: LACLEDE ELECTROCOAT RED NO 10301

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ HOLE | COLLECTION FILLERS | | | CHORD PLATE | | | △4 | CHANNEL PLATES | | | | | CHANNEL / ANGLE | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF "K" SEE NOTE 1 | NO | DIA | | NO | [illegible] | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | PCS. | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T26-L | 6 | A242 | 2"x1½"x.37 | 35'-8" | 7 | A36 | 3"x2"x.33 | 26'-0" | 3<br>38 | A242<br>A242 | L14<br>L14 | 40'-11¼"<br>10'-7⅝" | 6½ K @ 3'-4" = 21'-8"<br>13.4 K @ 3'-4" = 5'-9" | 7 | L14 | 35'-2¾" | | | | CP17 | A36 | 3"x¼" | 21'-0" | P8 | A36 | 3 | 4½x⅜ | 5½ | C-3 | A36 | 3"x2"x¼ | 7" | |

| COLUMN END | Es END TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | | END STIFFENER MK. V8 | | | MK. V9 | | | MK. V10 | | | △3 CHANNEL | | | NOTE NO. 2 | CHORD PLATE △3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | PCS | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | CHANNEL SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| | C32T26-L | 9 | A242 | 2x1½x.25 | 2 | 10'-4½" | 5'-4¼" | DS 38 | A242 | L14 | 2'-5¾" | 2 | A242 | L14 | 10½" | A242 | L14 | 8'-3⅞" | | | | CH3L △1 | A36 | 10 [illegible] | 10'-0" | CP 14 | A36 | 2"x⅝" | 1'-6" |

CHECK DIMENSION FOR FAB.
LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 12'-10½" | 26'-2½" | — | — | 7'-4½" |

| CORE END | EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL STRUT | | | | VERTICAL STRUT | | | | END [illegible] | | | | | | | | | DOUBLE STRUT | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | PCS | TYPE STEEL | DIA | LENGTH | MK |
| | C32T25-L | 9V | A242 | 2"x1½"x.25 | 10" | 2'-8¼" | 10 | A242 | L14 | 3'-6¼" | 5 | A242 | L14 | 2'-4⅞" | A242 | L14 | 4'-9" | A242 | L14 | 7⅜" | — | — | — | DS 3 | A242 | .92 | 2'-6¾" | 2 | A242 | .92 | 3'-6¼" | DS 10 |

REINF ANGLES (2 REQ'D)

| MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|
| RA2 | A36 | [illegible] | 7½" |

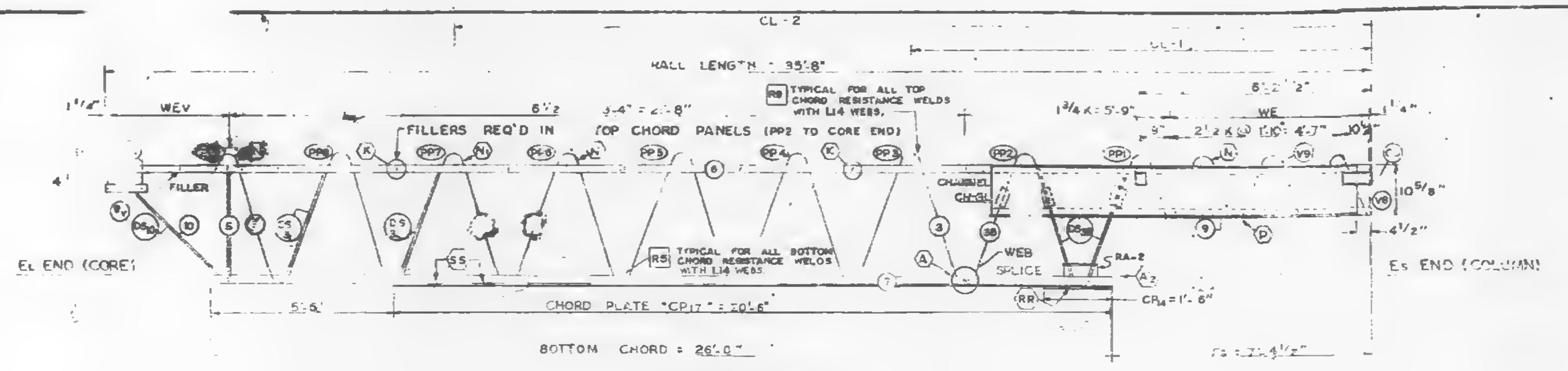
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T26-L 35'-8" OVERALL (SEE NOTE NO.2)
WORLD TRADE CENTER TOWERS A-B

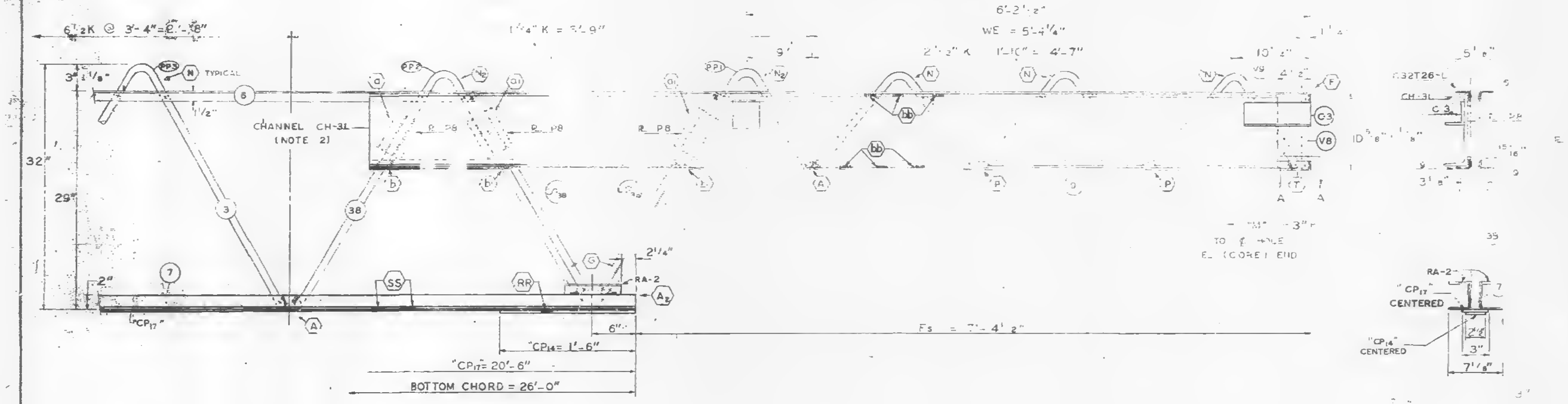
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-ABI-23
PLATE
APPROVED FOR FABRICATION BY James [illegible] FOR P.O.N.Y.A. DATE 12/4/68
DRAWN BY: [illegible] DATE SEPT. 23, 1968
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA DATE SEPT. 24, 1968
FABRICATION [illegible] 22
[illegible] BY: J. CARL WEBER
ST 226-L

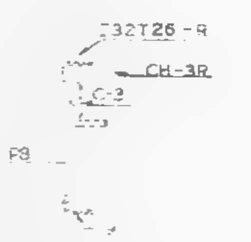
ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬).
ALL WELD DETAILS SHOWN ON SHEETS ST290.
ST 292, 293 & ST283.
SEE SHEET ST285 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD DETAIL, i.e., Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R5

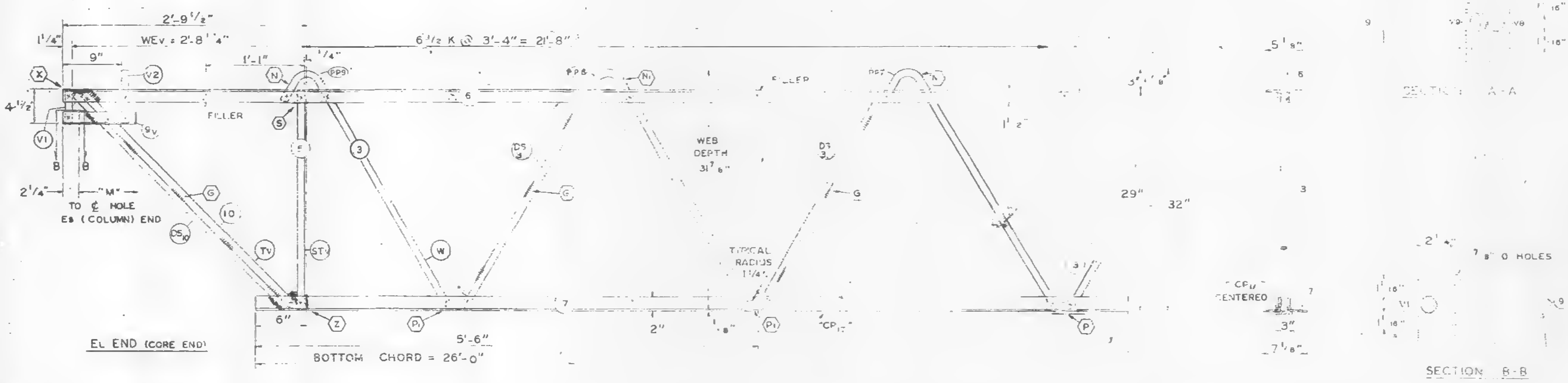

CL-2
WALL LENGTH = 35'-8"
R8 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH L14 WEBS.
WEV
6'-2"
FILLERS REQ'D IN TOP CHORD PANELS (PP2 TO CORE END)
6'-2 1/2"
WE
4'-7"
FILLER
CHANNEL CH-3L
R5 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH L14 WEBS
WEB SPLICE
RA-2
10 5/8"
4 1/2"
EL END (CORE)
ES END (COLUMN)
CHORD PLATE "CP17" = 20'-6"
CP14 = 1'-6"
BOTTOM CHORD = 26'-0"
Fs = 7'-4 1/2"

TRUSS ELEVATION





NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T26-L TRUSSES ARE APPLICABLE TO C32T26-R TRUSSES WITH CHANNEL, PLATE & ANGLE C-3 PLACED ON OPP. HAND.
CH-3L TO BE USED WITH C32T26-L
CH-3R " " " " C32T26-R
SEE SHEET ST407 FOR CHANNEL DETAILS.



SECTION B-B

FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 7/8" | 3/8" |
| DESIGN DEPTH | 29" | [illegible] |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | 3/8" |
| WEB DEPTH | 31 7/8" | [illegible] |
| CL DIMENSIONS | — | [illegible] |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| △1 | 10-31-68 | AS NOTED | L.W.H. |

REF. DRWG.

| | |
|---|---|
| 7-A81-23 | 8-13-68 |
| 7-A81-52 | 2-15-68 |
| 7-A81-53 | 7-22-66 |
| 7-A81-54 | 8-15-68 |
| 7-A84-53-56 | 8-15-68 |
| SA-124 | 8-1-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA. | LENGTH | NO OF "K" SEE NOTE 1 | FILLER NO | DIA. | "M" C/C HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | CHANNEL ANGLE MK | TYPE STEEL | SIZE | LENGTH | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T26-L | 6 | A242 | 2"x1 1/2"x .37 | 35'-8" | 7 | A36 | 3"x 2" x .33 | 26'-0" | 3<br>38 | A242<br>A242 | 1.14<br>1.14 | 40'-11 1/4"<br>10'-7 5/8" | 6 1/2 K @ 3'-4" = 21'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 7 | 1.14 | 35'-2 3/4" | | | | CP17 | A36 | 3"x1/4" | 20'-6" | P8 | A36 | 3 | 4 1/2"x3/8 | 5 1/2 | C3 | A36 | 3"x2"x1/4" | 3 1/2" | |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH | PCS | END STIFFENER MK. V8 TYPE STEEL | DIA | LENGTH | MK. V9 TYPE STEEL | DIA. | LENGTH | MK. V10 TYPE STEEL | DIA. | LENGTH | CHANNEL NOTE NO. 2 MK. | TYPE STEEL | CHANNEL SIZE | LENGTH | CHORD PLATE MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T26-L | 9 | A242 | 2"x1 1/2"x.25 | 2 | 10'-4 1/2" | 5'-4 1/4" | DS 38 | A242 | 1.14 | 2'-6 3/4" | 2 | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | | | | CH3L<br>CH3R | A36<br>A36 | 10 ⌴ 30<br>10 ⌴ 30 | 10'-0"<br>10'-0" | CP 14 | A36 | 2 1/2"x1/4" | 1'-6" |

△1

CHECK DIMENSION FOR FAB.

| LOCATION OF TRANS TRUSS CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEv | DIAGONAL "Tv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | VERTICAL "STv" STRUT MK. | TYPE STEEL | DIA. | LENGTH | END STIFFENER MK. V1 TYPE STEEL | DIA | LENGTH | MK. V2 STEEL | DIA | LENGTH | MK. V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS. | DOUBLE STRUT TYPE STEEL | DIA. | LENGTH | MK. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T26-L | 9V | A242 | 2"x1 1/2"x .25 | 10" | 2'-8 1/4" | 10 | A242 | 1.14 | 3'-6 1/4" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 5/8" | A242 | 1.14 | 7 3/8" | — | — | — | DS 3 | A242 | .92 | 2'-6 3/4" | 2 | A242 | .92 | 3'-6 1/4" | DS 10 |

REINF. ANGLES (2 REQ'D)

| MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|
| RA-2 | A36 | [illegible] | 7 1/2" |

PAINT: LACLEDE ELECTROCOAT
RED NO. 10001

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

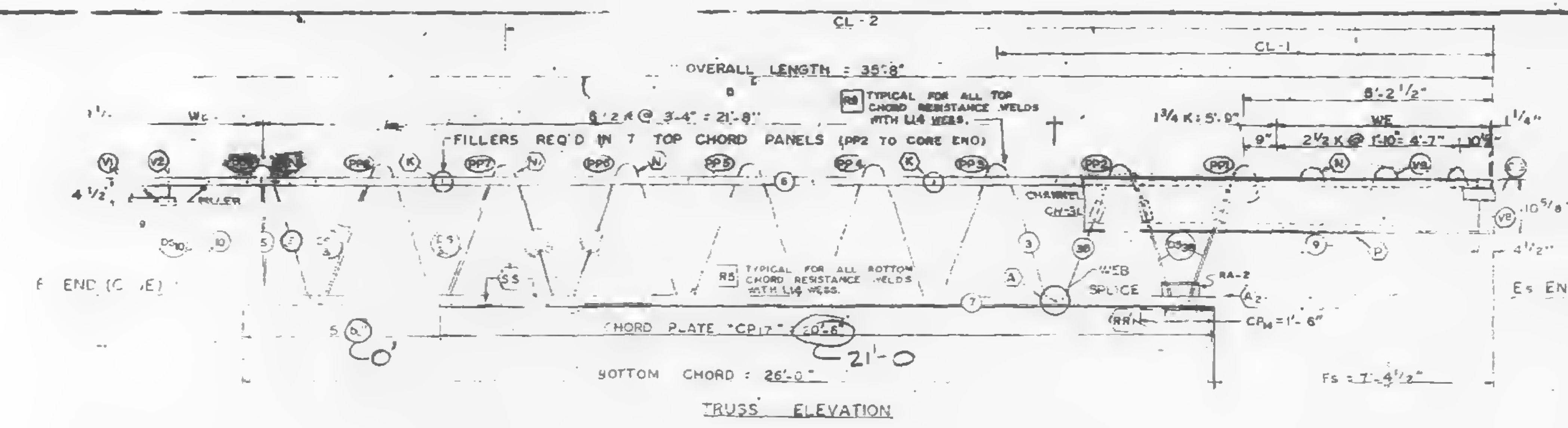
FLOOR TRUSS C32T26-L 35'-8" OVERALL (SEE NOTE NO.2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

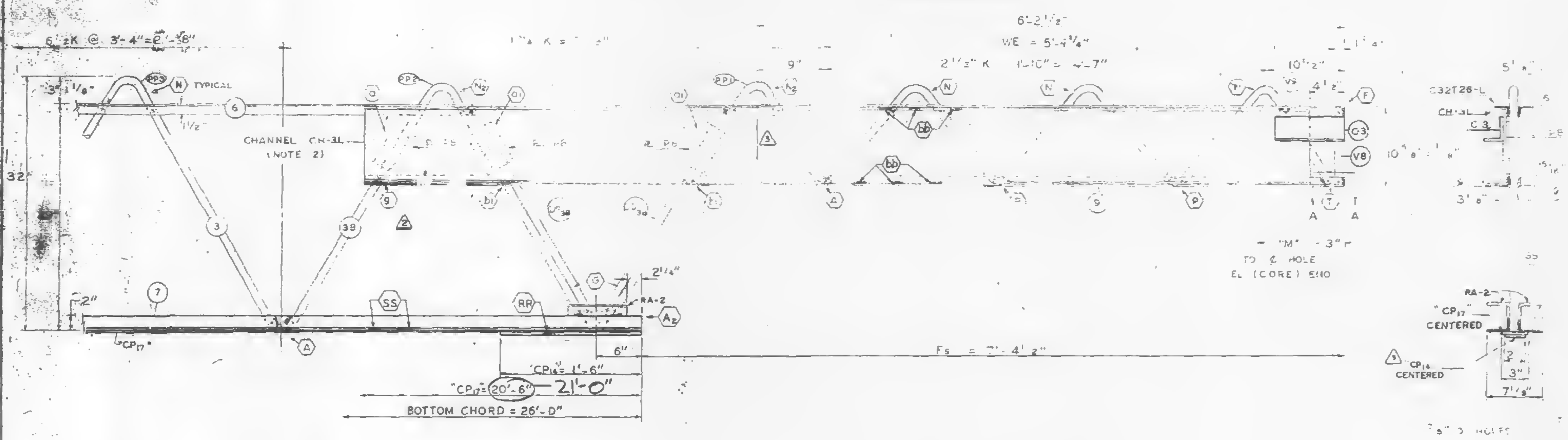
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-23 | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. | DATE 11/7/68 | DRAWN BY: [illegible]<br>DATE SEPT. 23, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: T.M. CHURA<br>DATE SEPT. 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 226 |

POINTS RESISTANCE WELDED (X).
[illegible] AT SHADED AREAS
[illegible] CHORD WEB SPLICES ([illegible]).
[illegible] SHOWN ON SHEETS ST290.
[illegible] ST283.
[illegible] FOR V1 & V2

[illegible] DETAILS SHOWN ON SHEET ST283
LETTERS IN HEXAGON INDICATE WELD DETAIL, ie. Ⓐ
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R5



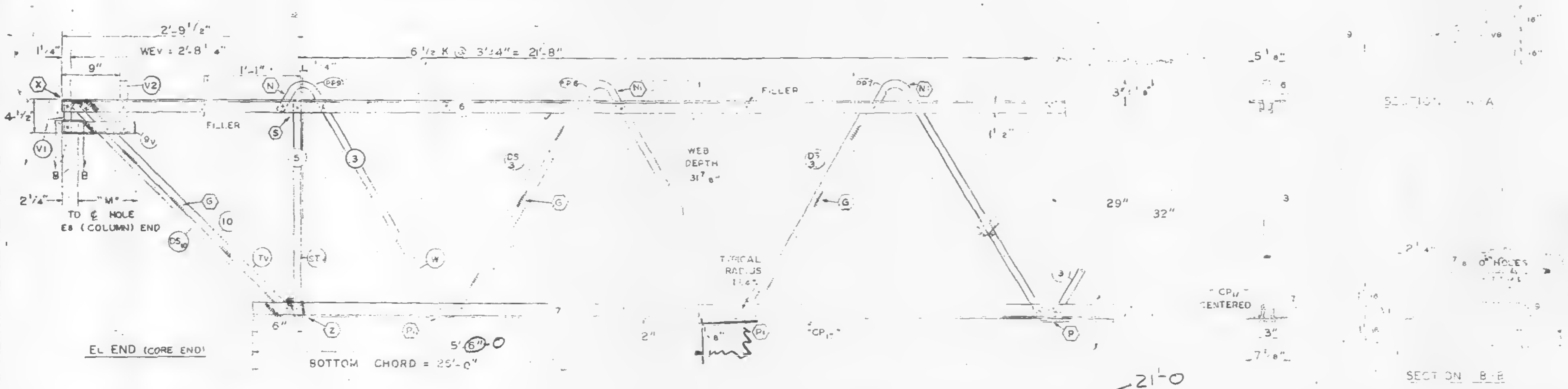
TRUSS ELEVATION



NOTE 2 △3
ALL DETAILS & ELEVATIONS SHOWN FOR C32T26-L TRUSSES ARE APPLICABLE TO C32T26-R, C32T26LX & C32T26RX TRUSSES, AS NOTED:

CHANNEL CH2L TO BE USED WITH C32T26LX
CH3L " " " " C32T26L
CH2R " " " " C32T26R
CH3R " " " " C32T26RX
SEE ST407 FOR CHANNEL DETAILS

| FABRICATION REQUIREMENTS | DESIGN | |
|---|---|---|
| CAMBER AT MIDSPAN | 7/8" | |
| DESIGN DEPTH | 8" | |
| PANEL "K" | | ±1/4" |
| OVERALL LENGTH | 35'-8" | ±3/8 |
| WEB DEPTH | 31 7/8" | 1/4" |
| CL DIMENSIONS | | ±3/8" |



| NO | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 11-14-68 | AS NOTED | LWH |
| △2 | 11-7-68 | AS NOTED | [illegible] |
| △1 | 10-31-68 | AS NOTED | LWH |

CHRISTIANSEN [illegible] SON
Structural & Civil Engineers
12/3/68 SK

△2 REF DRWG

| | |
|---|---|
| 7-ABI-23 | 10-4-68 |
| 7-ABI-52 | 2-15-68 |
| 7-ABI-53 | 7-22-68 |
| 7-ABI-54 | 10-4-68 |
| 7-AB4-53-56 | 10-4-68 |
| SA-124 | 10-11-66 |

PAINT LACLEDE ELECTROCOAT
REC NO 1000

21'-0

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK | TYPE STEEL | CHORD SIZE | LENGTH | MAIN WEB "W" MK | TYPE STEEL | DIA | LENGTH | NO OF "K" SEE NOTE 1 | FILLER NO | DIA | ℄ "M" ℄ HOLE | CONNECTION FILLERS NO | DIA | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LENGTH | CHANNEL PLATES MK | TYPE STEEL | PCS. | SIZE | LENGTH | CHANNEL ANGLE MK | TYPE STEEL | SIZE | LENGTH | TRUSS DATA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T26-L | 6 | A242 | 2"x1 1/2"x.37 | 35'-8" | 7 | A36 | 3"x2"x.33 | 26'-0" | 3<br>3B | A242<br>A242 | 1.14<br>1.14 | 40'-11 1/4"<br>10'-7 5/8" | 6 1/2 K 3'-4" = 21'-8"<br>1 3/4 K @ 3'-4" = 5'-9" | 7 | 1.14 | 35'-2 3/4" | | | | CP17 | A36 | 3"x1/4" | 20'-6" | P8 | A36 | 3 | 4 1/2 x 39 | 5 1/2" | C-3 | A36 | 3"x2"x1/4" | 9" | | |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES MK | TYPE STEEL | CHORD SIZE | PCS | LENGTH | WE | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | PCS | END STIFFENER MK V8 TYPE STEEL | DIA | LENGTH | MK V9 TYPE STEEL | DIA | LENGTH | MK Z10 TYPE | DIA | LENGTH | △3 CHANNEL NOTE NO. 2 MK | TYPE STEEL | CHANNEL SIZE | LENGTH | CHORD PLATE △3 MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T26-L | 8 | A242 | 2x1 1/2x.25 | 2 | 10'-4 1/2" | 5'-4 1/4" | DS 3B | A242 | 1.14 | 2'-6 3/4" | 2 | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | | | | CH3L △1 | A36 | 10 2.30 | 10'-0" | CP 14 | A36 | 2"x3/8" | 1'-6" |

CHECK DIMENSION FOR FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | — | — | 7'-4 1/2" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | WEV | DIAGONAL "Tv" STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "STv" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | MK V2 TYPE STEEL | DIA. | LENGTH | MK V4 TYPE STEEL | DIA. | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA. | LENGTH | PCS. | DOUBLE STRUT TYPE STEEL | DIA | LENGTH | MK. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | C32T26-L | 9V | A242 | 2"x1 1/2"x.25 | 10" | 2'-8 1/4" | 10 | A242 | 1.14 | 3'-6 1/4" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | A242 | 1.14 | 7 3/8" | — | — | — | DS 3 | A242 | .92 | 2'-6 3/4" | 2 | A242 | .92 | 3'-6 1/4" | DS 10 |

| REINF ANGLES (2 REQ'D) MK | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|
| RA-2 | A36 | 3"x2"x.33" | 7 1/2" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

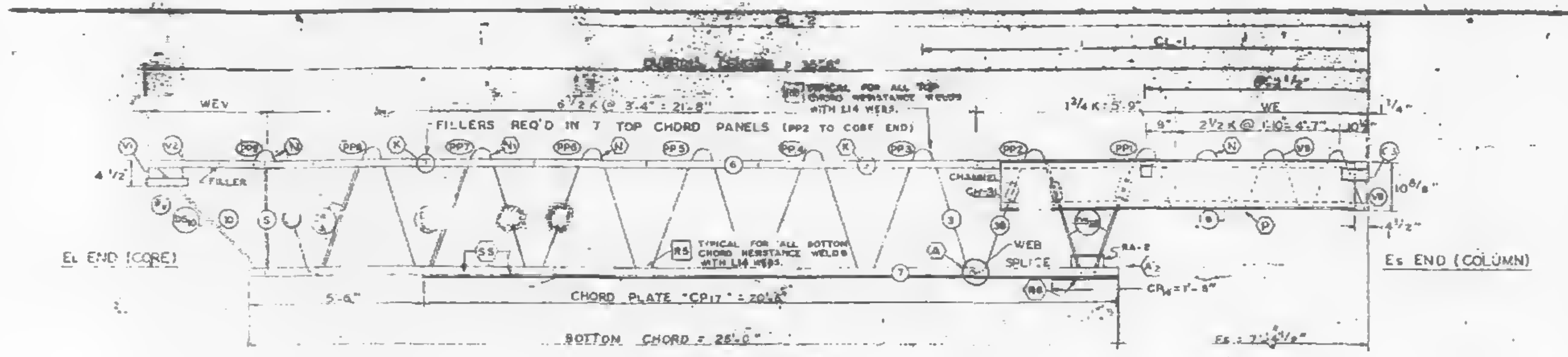
FLOOR TRUSS C32T26-L 35'-8" OVERALL (SEE NOTE NO.2)
WORLD TRADE CENTER TOWERS A-B

FABRICATED BY LACLEDE STEEL COMPANY

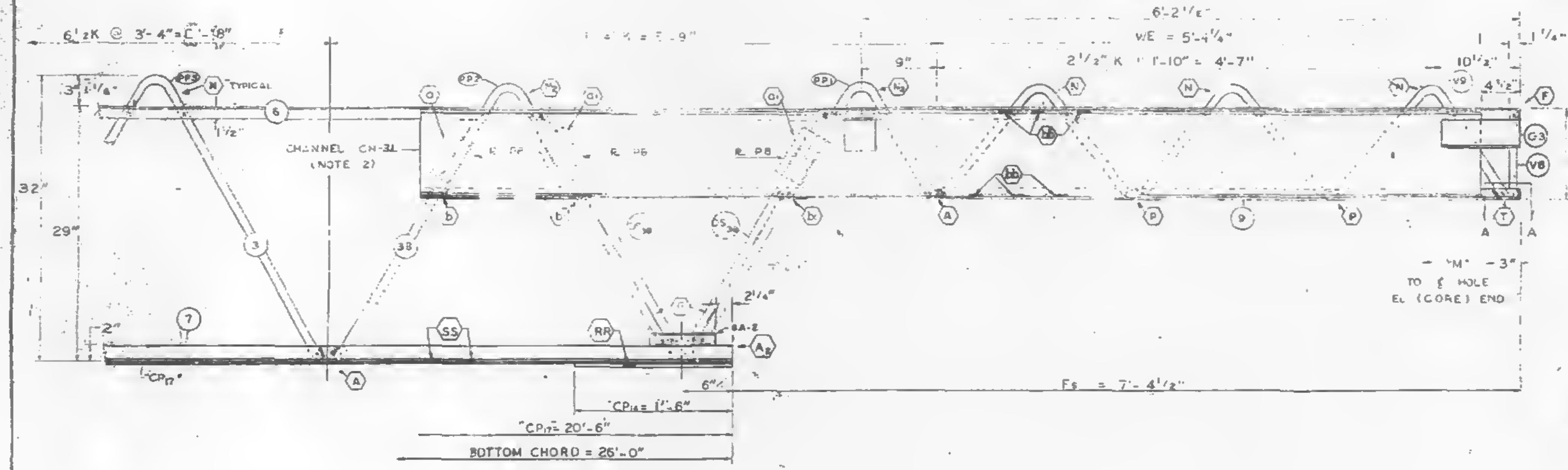
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-ABI-23 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY [illegible] DATE SEPT. 23, 1968 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: T.N. CHURA DATE SEPT. 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT NO. W.T.C. 221 | SHEET NO. ST 226 |

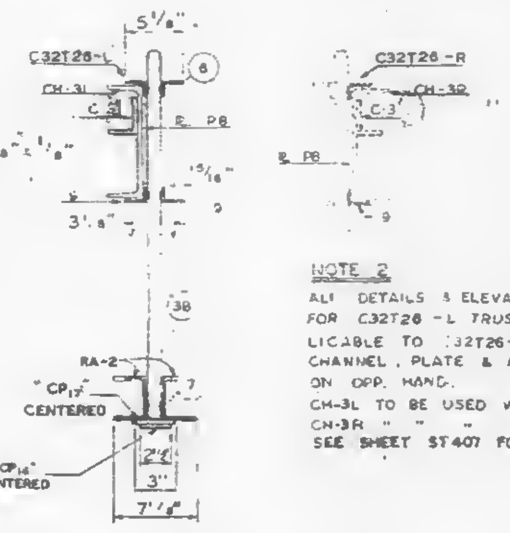
ALL [illegible] RESISTANCE WELDED (X).
ARC [illegible] AT SHADED AREAS
AND AT [illegible] CHORD WEB SPLICES ( ).
ALL WELD DETAILS SHOWN ON SHEETS ST290, 291, 292, 293 & ST283
SEE SHEET ST295 FOR V1 & V2

CHORD PLATE DETAILS SHOWN ON SHEET ST283.
LETTERS IN HEXAGON INDICATE WELD [illegible]
LETTERS & NUMBERS IN SQUARES [illegible] RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM.

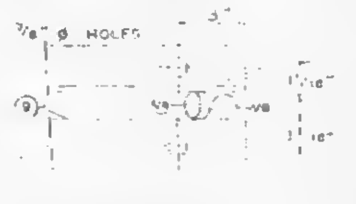

CL-1
WEV
WE
6 1/2 K @ 3'-4" = 21'-8"
1 3/4 K @ 3'-9"
2 1/2 K @ 3'-10" = 4'-7"
FILLERS REQ'D IN 7 TOP CHORD PANELS (PP2 TO CORE END)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14 WEBS
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14 WEBS
FILLER
CHANNEL
WEB SPLICE
RA-2
EL END (CORE)
Es END (COLUMN)
CHORD PLATE "CP17" = 20'-6"
CP14 = 1'-8"
5'-6"
BOTTOM CHORD = 26'-0"
Fs = 7'-4 1/2"

TRUSS ELEVATION

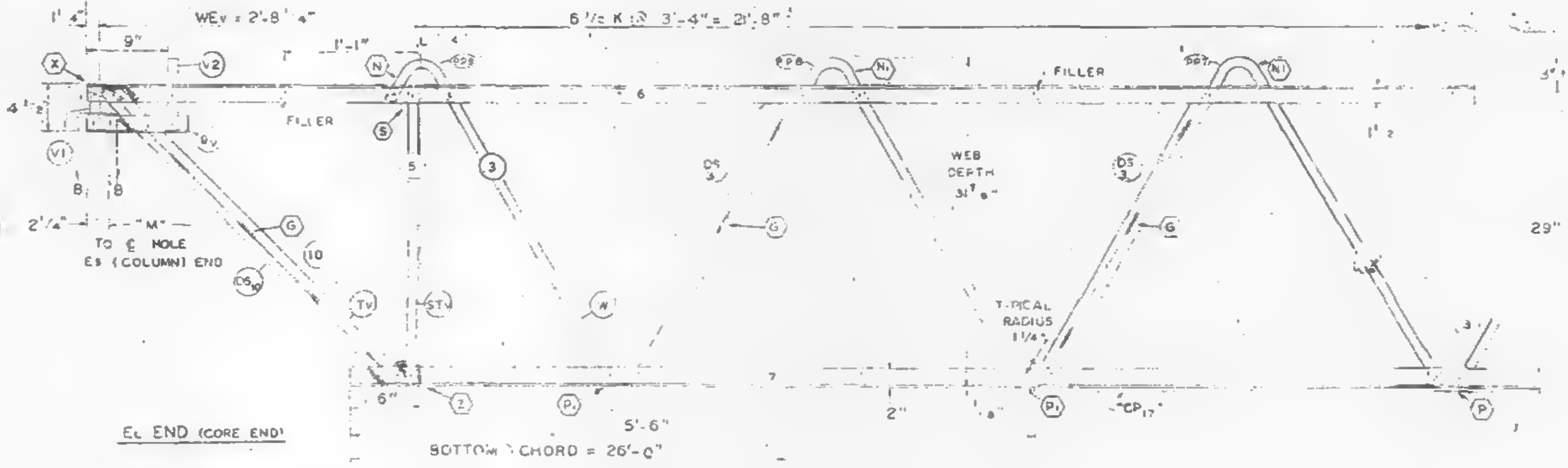




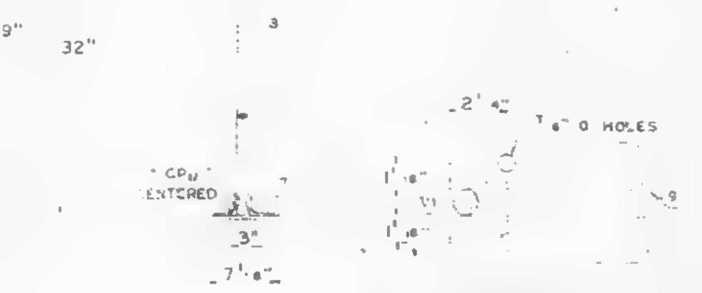
NOTE 2
ALL DETAILS & ELEVATIONS SHOWN FOR C32T26-L TRUSSES ARE APPLICABLE TO C32T26-R TRUSSES WITH CHANNEL, PLATE & ANGLE C-3 PLACED ON OPP. HAND.
CH-3L TO BE USED WITH C32T26-L
CH-3R " " " " C32T26-R
SEE SHEET ST407 FOR CHANNEL DETAILS.



SECTION A-A



EL END (CORE END)



SECTION B-B

FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 7/8" | 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 35'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |
| CL DIMENSIONS | —— | ± 3/4" |

| REF. DRWG. | |
|---|---|
| 7-A81-23 | 8-13-68 |
| 7-A81-52 | 2-15-68 |
| 7-A81-53 | 7-22-68 |
| 7-A81-54 | 8-15-68 |
| 7-A84-53-56 | 8-15-68 |
| SA-124 | 8-1-68 |

SKILLING HELLE
CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
X
10/29/68 SK

PAINT: LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLE | CONNECTION FILLERS | | | CHORD PLATE | | | | CHANNEL PLATES | | | | | CHANNEL & ANGLE | | | | TRUSS DATA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF "K" SEE NOTE 1 | NO. | DIA. | | NO. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | PCS. | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | |
| C32T26-L | 6 | A242 | 2" x 1 1/2" x .37 | 35'-6" | 7 | A36 | 3" x 2" x .33 | 26'-0" | 3<br>38 | A242<br>A242 | 1.14<br>1.14 | 40'-11 1/4"<br>10'-7 3/8" | 9 1/2 K @ 3'-4" = 31'-8"<br>1 3/4 K @ 3'-4" = 5'-8" | 7 | 1.14 | 35'-2 3/4" | | | | CP17 | A36 | 3" x 5/16" | 20'-6" | P8 | A36 | 3 | 4 1/2" x 2 3/8" | [illegible] | C-3 | A36 | 3" x 2" x 1/4" | [illegible] | |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | WE | DOUBLE STRUT | | | | | END STIFFENER MK. V8 | | | END STIFFENER MK. V9 | | | END STIFFENER MK. V10 | | | CHANNEL NOTE NO. 2 | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | PCS. | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | PCS. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | CHANNEL SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| | C32T26-L | 0 | A242 | 2 x 1 1/2 x .25 | 2 | 10'-4 1/2" | 5'-4 1/4" | DS 38 | A242 | 1.14 | 2'-6 3/4" | 2 | A242 | 1.14 | 10 1/2" | A242 | 1.14 | 8'-3 7/8" | | | | CH3L<br>CH3R | A36<br>A36 | 10 230<br>10 230 | 10'-0"<br>10'-0" | CP 14 | A36 | 2" x 1/4" | 1'-8" |

R

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEV | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | DOUBLE STRUT | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | PCS. | TYPE STEEL | DIA. | LENGTH | MK. |
| | C32T26-L | BV | A242 | 2" x 1 1/2" x .25 | 10" | 2'-8 1/4" | 10 | A242 | 1.14 | 3'-6 1/4" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 5/8" | A242 | 1.14 | 7 3/8" | — | — | — | DS 17 | A242 | .92 | 2'-8 3/4" | 2 | A242 | .92 | 3'-6 1/4" | DS 10 |

CHECK DIMENSION FOR FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 12'-10 1/2" | 26'-2 1/2" | —— | —— | 7'-4 1/2" |

REINF ANGLES (2 REQ'D)

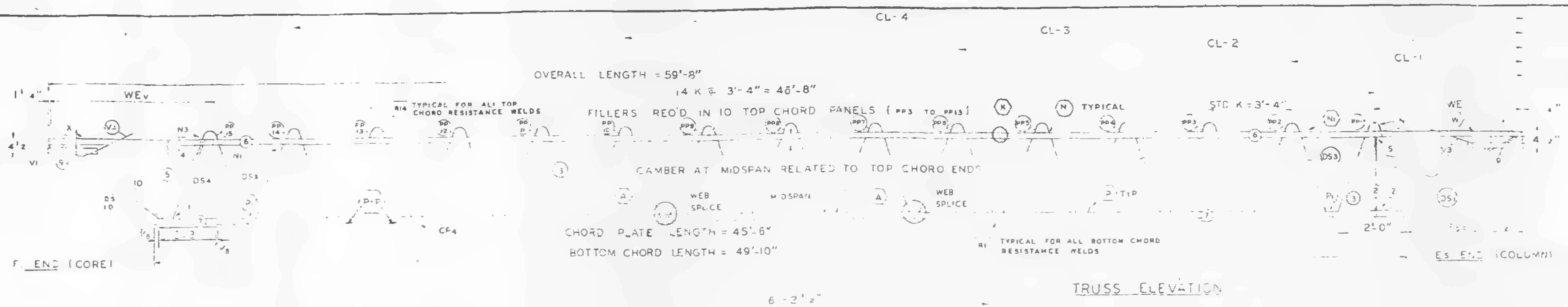
| MK. | TYPE STEEL | SIZE | LENGTH |
|---|---|---|---|
| RA-2 | A36 | 3" x [illegible] | 7 1/2" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

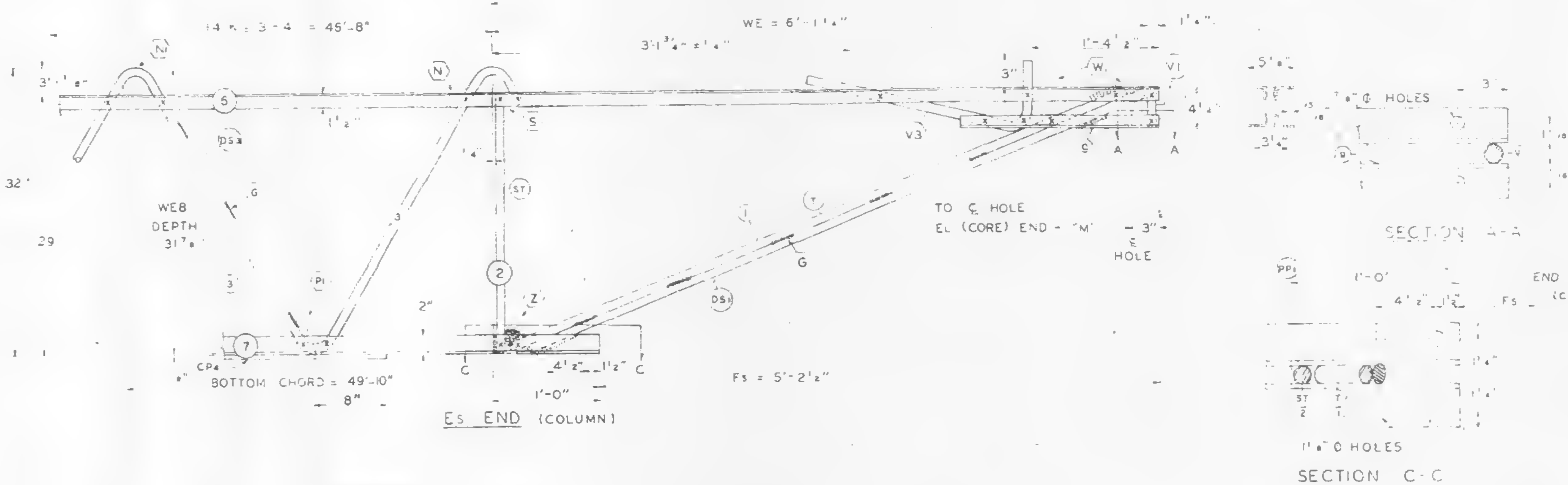
FLOOR TRUSS C32T26-L 35'-8" OVERALL (SEE NOTE NO. 2)
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-23 | |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE | DRAWN BY [illegible]<br>DATE SEPT. 23, 1968 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA<br>DATE SEPT. 24, 1968 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONTRACT NO. W.T.C. 221 | SHEET NO. ST 226-L |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
WEv
RI4 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
K
N TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P-TIP
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
RI TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP4
2'-0"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION



Es END (COLUMN)

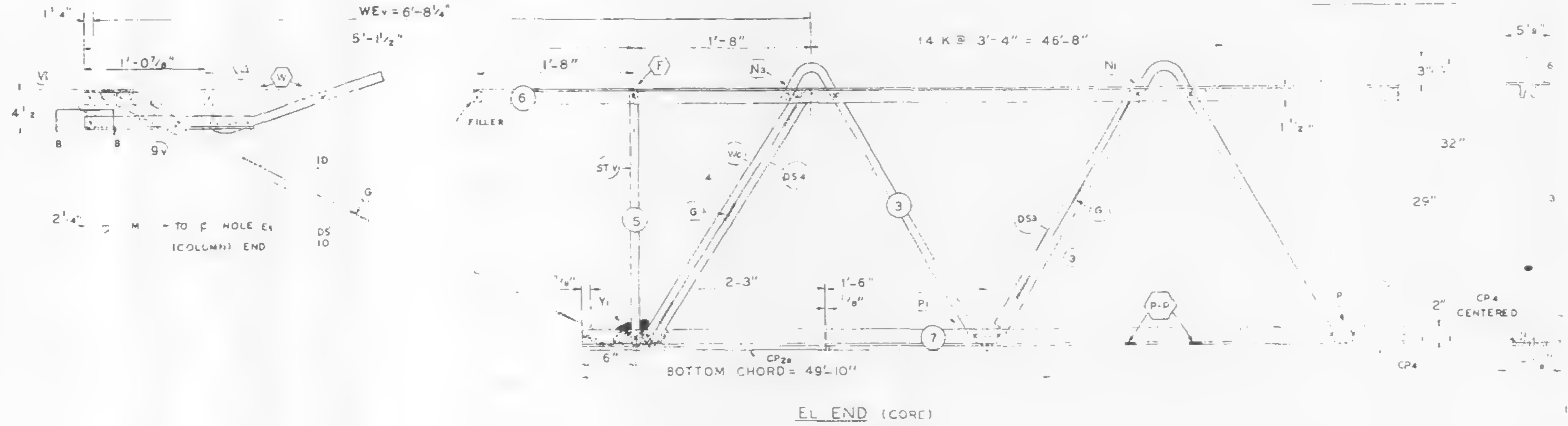
SECTION A-A

SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY OTHERS

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES ( )
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST286
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



EL END (CORE)

SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

REF DRWG
7-AB1-24 1-6-69
7-AB4-50 8-1-68
7-AB3-41 1-6-69
7-AB1-53 7-22-68

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T27C-598 | 6 | A242 | 2"x1½"x.31 | 59'-8" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼ | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 59'-2¾" | - | - | — | CP4 | A36 | 4"x.375" | 45'-6" | CP2B | A36 | 4"x.375" | 2'-3" |

COLUMN END

| ES END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T27C-598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .75 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

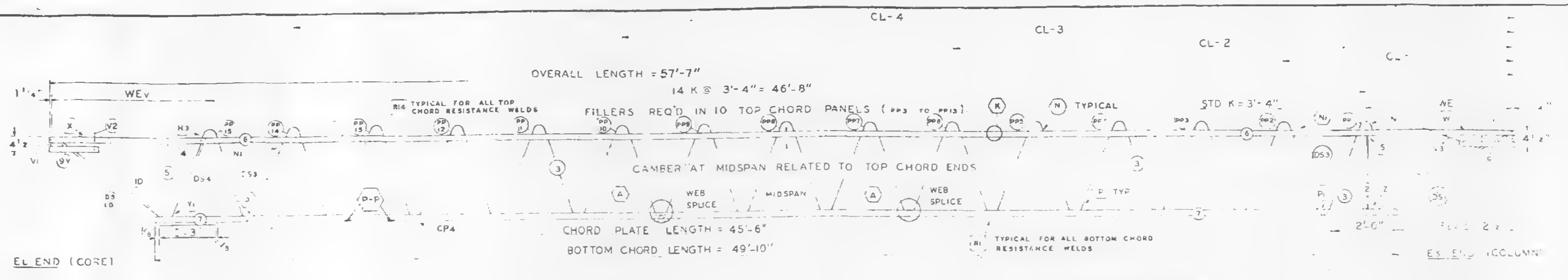
CORE END

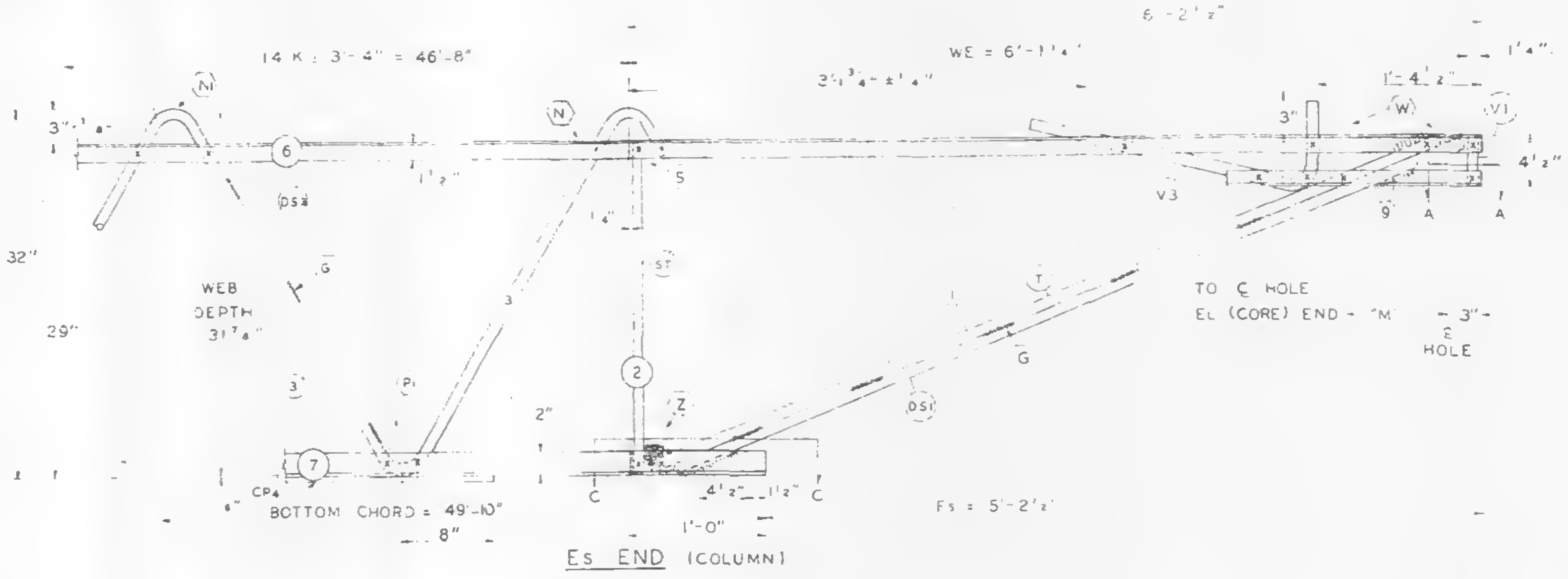
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T27C-598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8¼" | 10 | A242 | 1.14 | 5'-4¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | | | | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'- | DS4 | A242 | .75 | 2'-9½" | DS10 | A242 | .75 | 5'-4¼" | DS3 | A24 | .75 | 2'-6¾" |

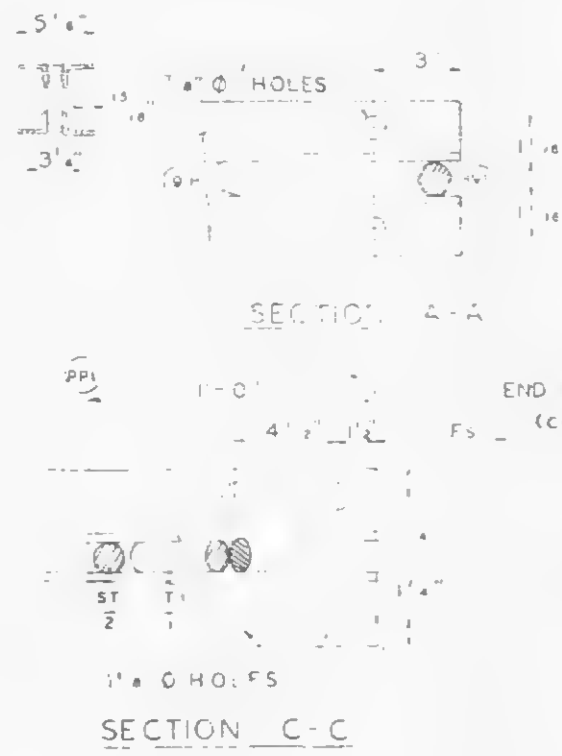
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T27 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO 7-AB1-24
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE 6/4/69
DRAWN BY L.B. DATE APRIL 17, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE APRIL 17, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT NO. W.T.C. 221
SHEET NO. ST227C

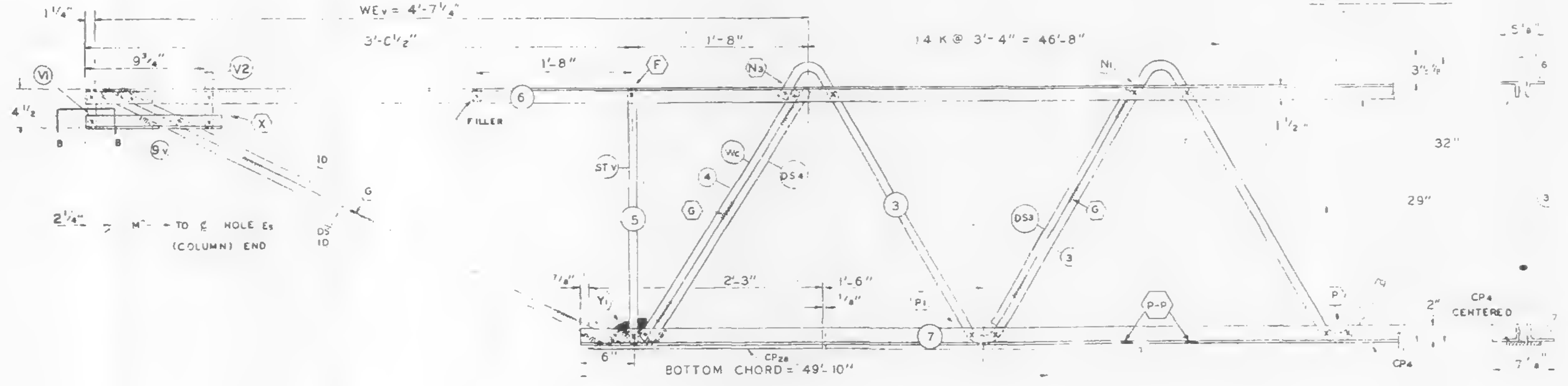

CL-4
CL-3
CL-2
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
WEv
RI4 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
K
N TYPICAL
STD K = 3'-4"
WE
V2
X
N3
N1
DS3
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
P-P
A
WEB SPLICE
MIDSPAN
P TYP
CP4
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
RI TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
EL END (CORE)
ES END (COLUMN)
TRUSS ELEVATION

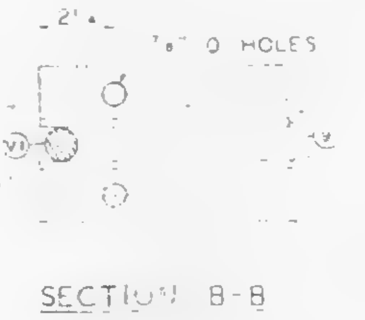




ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST286
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (CORE END) IN FIELD ASSEMBLY BY OTHERS





| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 15/16" | ± 3/8" |
| DESIGN DEPTH | 20" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

REF DRWG

| | |
|---|---|
| 7-AB1-24 | 1-8-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TOP CHORD TYPE STEEL | TOP CHORD CHORD SIZE | TOP CHORD LENGTH | BOTTOM CHORD TWO ANGLES MK | BOTTOM CHORD TYPE STEEL | BOTTOM CHORD CHORD SIZE | BOTTOM CHORD LENGTH | MAIN WEB "W" MK | MAIN WEB TYPE STEEL | MAIN WEB DIA. | MAIN WEB LENGTH | MAIN WEB NO. OF K | FILLER NO | FILLER DIA. | "M" C/C HOLES | CONNECTION FILLERS NO | CONNECTION FILLERS DIA | CONNECTION FILLERS LENGTH | CHORD PLATE MK | CHORD PLATE TYPE STEEL | CHORD PLATE SIZE | CHORD PLATE LENGTH | CHORD PLATE MK | CHORD PLATE TYPE STEEL | CHORD PLATE SIZE | CHORD PLATE LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T2 577 | 6 | A242 | 2"x1½"x.31 | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-¼ | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-1¾ | — | — | — | CP4 | A36 | 4"x.375" | 45'-6" | CP28 | A36 | 4"x.375 | 2'-3" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES MK | BEARING ANGLES TYPE STEEL | BEARING ANGLES CHORD SIZE | BEARING ANGLES LENGTH | WE | DIAGONAL "T" STRUT MK | DIAGONAL "T" STRUT TYPE STEEL | DIAGONAL "T" STRUT DIA | DIAGONAL "T" STRUT LENGTH | VERTICAL "ST" STRUT MK | VERTICAL "ST" STRUT TYPE STEEL | VERTICAL "ST" STRUT DIA | VERTICAL "ST" STRUT LENGTH | END STIFFENER MK. V1 TYPE STEEL | MK. V1 DIA | MK. V1 LENGTH | END STIFFENER MK. V3 TYPE STEEL | MK. V3 DIA | MK. V3 LENGTH | DOUBLE STRUT MK | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA | DOUBLE STRUT LGTH. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T27P 577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .75 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS F LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

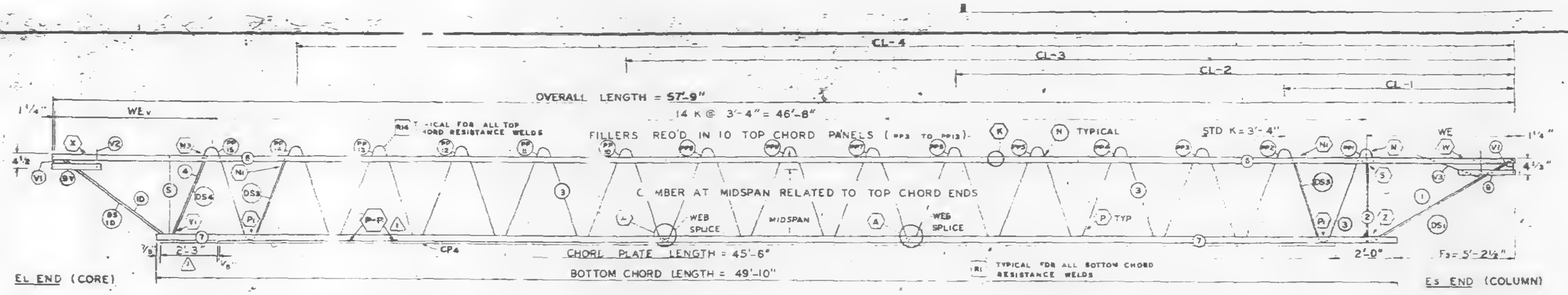
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES MK | BEARING ANGLES TYPE STEEL | BEARING ANGLES CHORD SIZE | BEARING ANGLES LENGTH | WEv | DIAGONAL "Tv" STRUT MK | DIAGONAL "Tv" STRUT TYPE STEEL | DIAGONAL "Tv" STRUT DIA | DIAGONAL "Tv" STRUT LENGTH | VERTICAL "STv" STRUT MK | VERTICAL "STv" STRUT TYPE STEEL | VERTICAL "STv" STRUT DIA. | VERTICAL "STv" STRUT LENGTH | END STIFFENER MK. V1 TYPE STEEL | MK. V1 DIA | MK. V1 LENGTH | END STIFFENER MK. V2 TYPE STEEL | MK. V2 DIA. | MK. V2 LENGTH | END STIFFENER MK. V4 TYPE STEEL | MK. V4 DIA. | MK. V4 LENGTH | WEB "Wc" MK | WEB "Wc" TYPE STEEL | WEB "Wc" PCS | WEB "Wc" DIA | WEB "Wc" LENGTH | DOUBLE STRUT MK | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA | DOUBLE STRUT LENGTH | DOUBLE STRUT MK | DOUBLE STRUT TYPE STEEL | DOUBLE STRUT DIA | DOUBLE STRUT LENGTH | DOUBLE STRUT (REQ'D) MK | DOUBLE STRUT (REQ'D) TYPE STEEL | DOUBLE STRUT (REQ'D) DIA | DOUBLE STRUT (REQ'D) LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T27P 577 | 9 | A242 | 2"x1½"x.37 | 1¾" | 4'-7½ | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅛" | — | — | — | 4 | A242 | 1 | 1.14 | 2 ½" | DS4 | A242 | .75 | 2'-9½" | DS10 | A242 | .75 | 3'-7" | DS3 | 42 | .75 | 2'-8¾" |

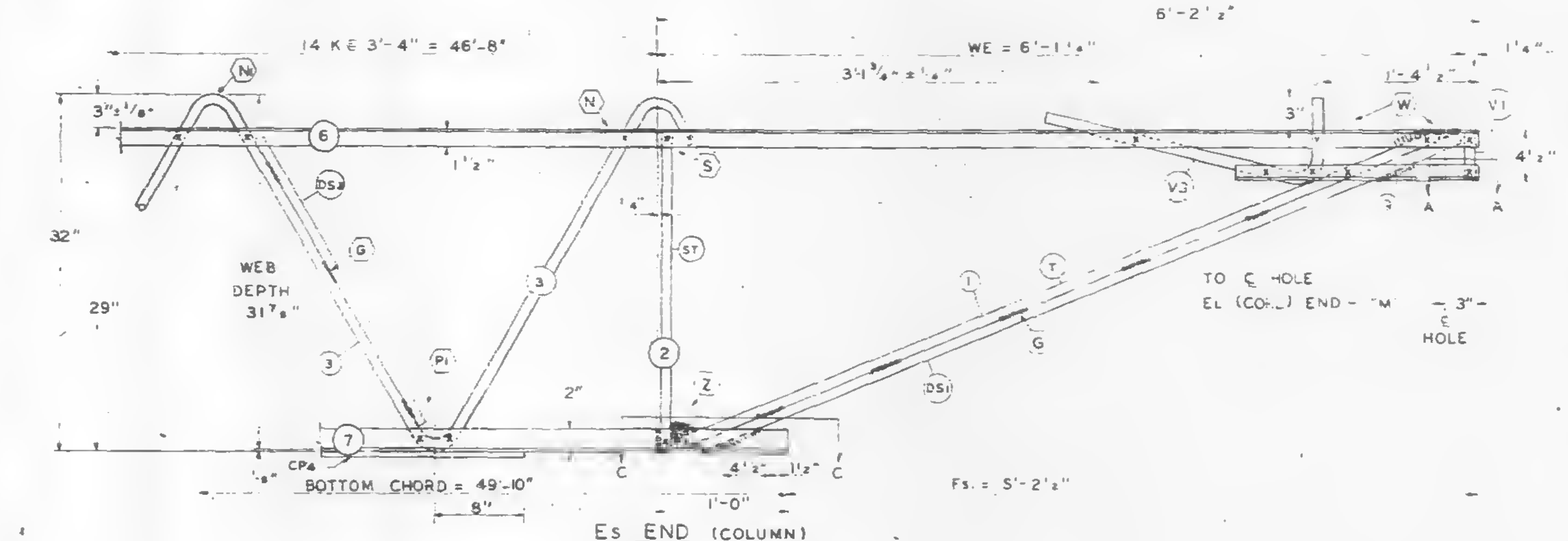
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T27P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

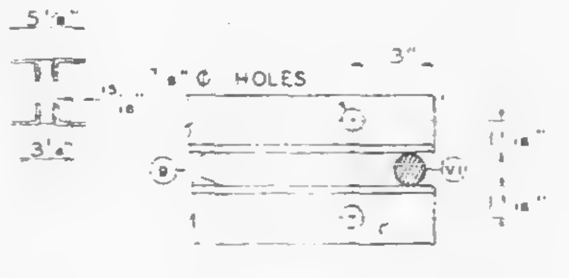
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-24
PLATE
APPROVED FOR FABRICATION BY [illegible] White FOR PONYA DATE 6/4/69
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DRAWN BY L.R DATE APRIL 17, 1969
CHECKED BY T.N.CHIRA DATE APRIL 17, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A C WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST227P


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
WEv
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
TYPICAL
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP4
2'-3"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

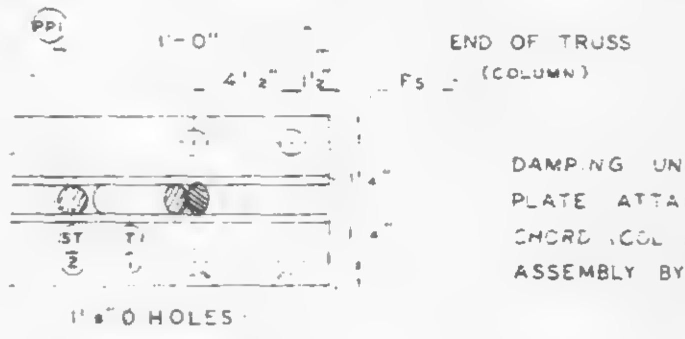
TRUSS ELEVATION



Es END (COLUMN)



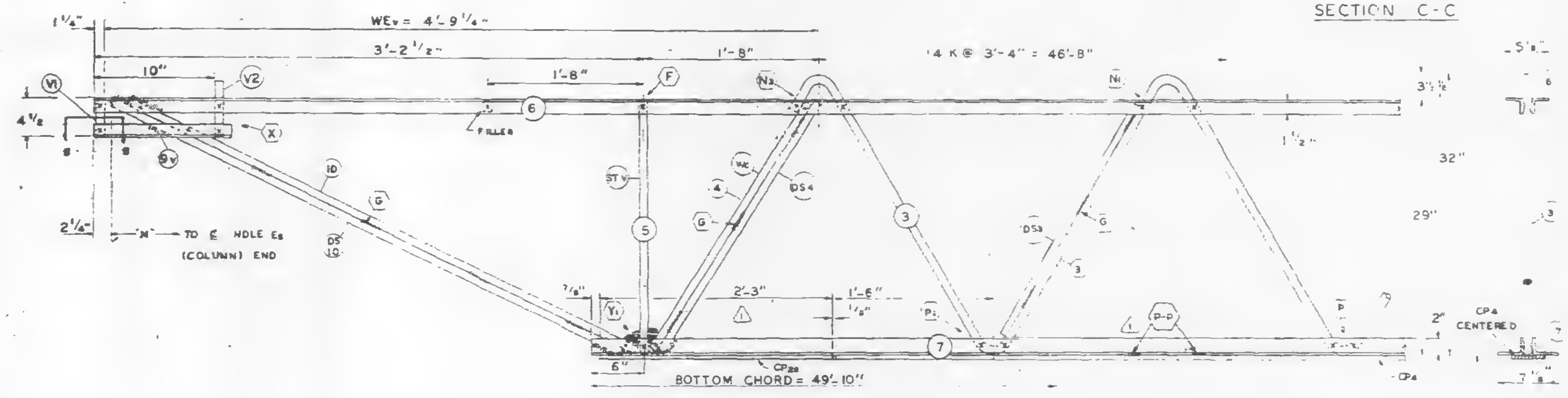
SECTION A-A



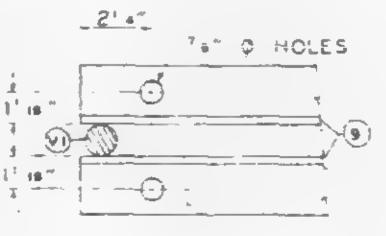
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND ∠.
BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294
AND ST286 △
SEE SHEET ST295 FOR V1, V2, V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS i.e., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM i.e., [R1]

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD.
ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 [illegible] | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± [illegible] |
| OVERALL LENGTH | 57'-9" | ± 1/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| △1 | 2-14-69 | AS NOTED | E.D.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-24 | 1-6-69 |
| 7-AB4-50 | 9-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | CHORD PLATE △1 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T27N 579 | 6 | A242 | 2"x1½"x.31 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼ | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | — | — | — | CP4 | A36 | 4"x.375" | 45'-6" | CP28 | A36 | 4"x.375" | 2'-3" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFF | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T27N-579 | 9 | A242 | 2"x1½"x.37 △1 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3¼" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | A2[illegible] | 1.14 | 2'-5[illegible] | DS1 | A242 | .75 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

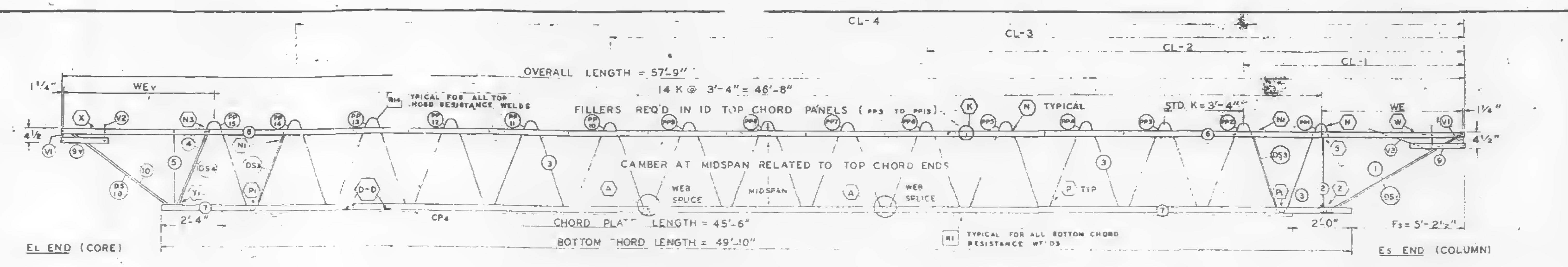
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT △1 | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT △1 | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T27N 579 | 9 | A242 | 2"x1½"x.37 △1 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-8¼" | 5 | A242 | 1.14 | 2'-4⅛" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅝" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .75 | 2'-9½" | DS10 | A242 | .75 | 3'-8¼" | DS3 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

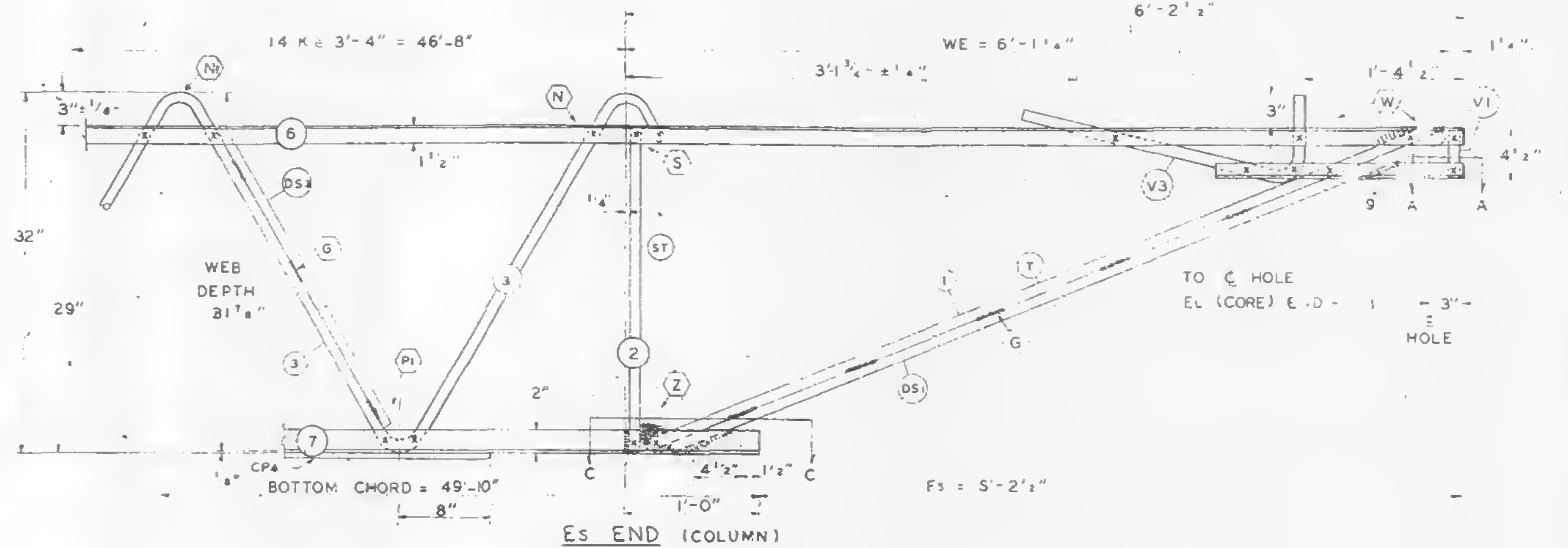
FLOOR TRUSS C32T27N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-24 PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE.
DRAWN BY: [illegible]
DATE: JAN. 20, 1969
CHECKED BY: [illegible]
DATE: JAN. 21, 1969
DETAILED BY LACLEDE STEEL CO.
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST2[illegible]


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
FILLERS REQ'D IN ID TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
TYPICAL
STD. K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
TIP
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-4"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 5" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |



## Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)

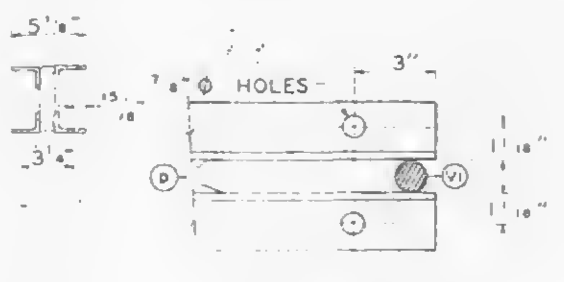
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES

ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST287.

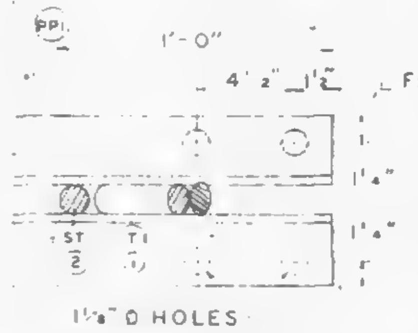
SEE SHEET ST295 FOR V1, V2, V3, DETAILS

LETTERS IN HEXAGON INDICATE WELD DETAILS ie. A

LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R1

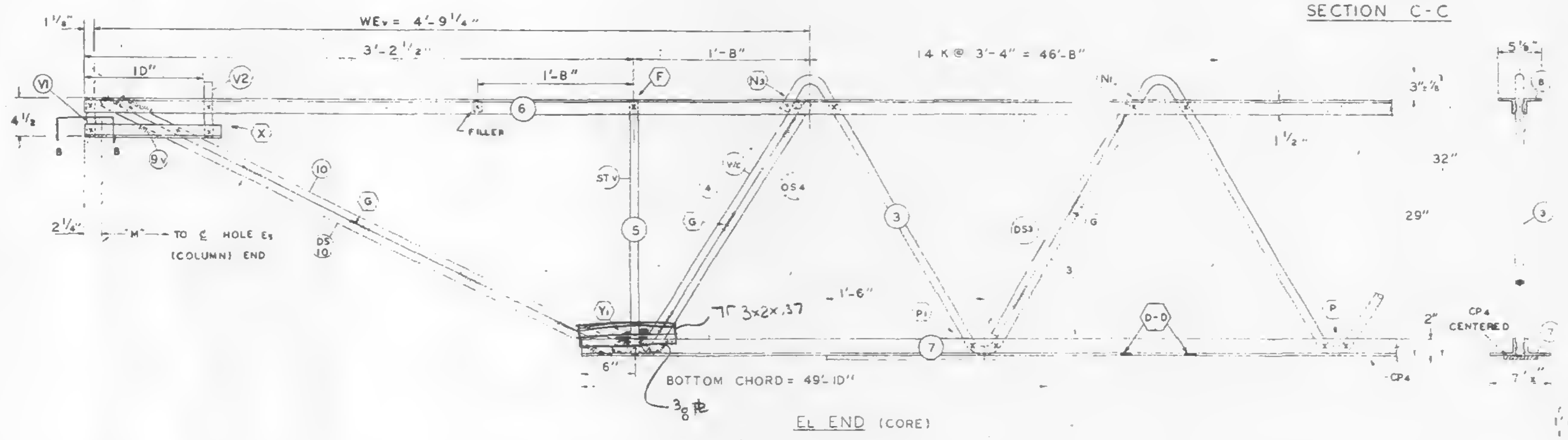


## SECTION A-A

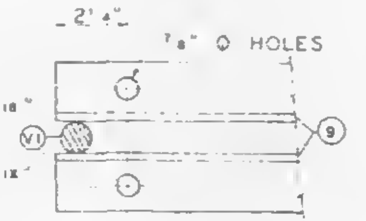


## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



## EL END (CORE)



## SECTION B-B

| REF DRWG. | |
|---|---|
| 7-AB1-24 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

**PAINT**
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO | DIA. | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T27N-579 | 6 | A242 | 2"x1½"x.31 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | — | — | — | CP4 | A36 | 4"x.375" | 45'-6" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T27N-579 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .75 | 6'-3⅛" |

.31

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT (2) (REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T27N 579 | 9 | A242 | 2"x1½"x.25 | 2'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7⅝" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅝" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .75 | 2'-9½" | DS10 | A242 | .75 | 3'-7⅝" | DS3 | A242 | .75 | 2'-6¾" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
X APPROVED AS NOTED
2 19 69 SK

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

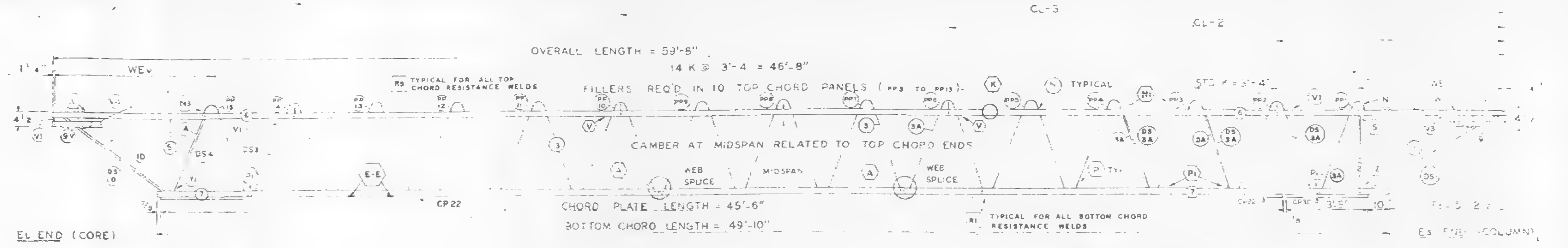
FLOOR TRUSS C32T27N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

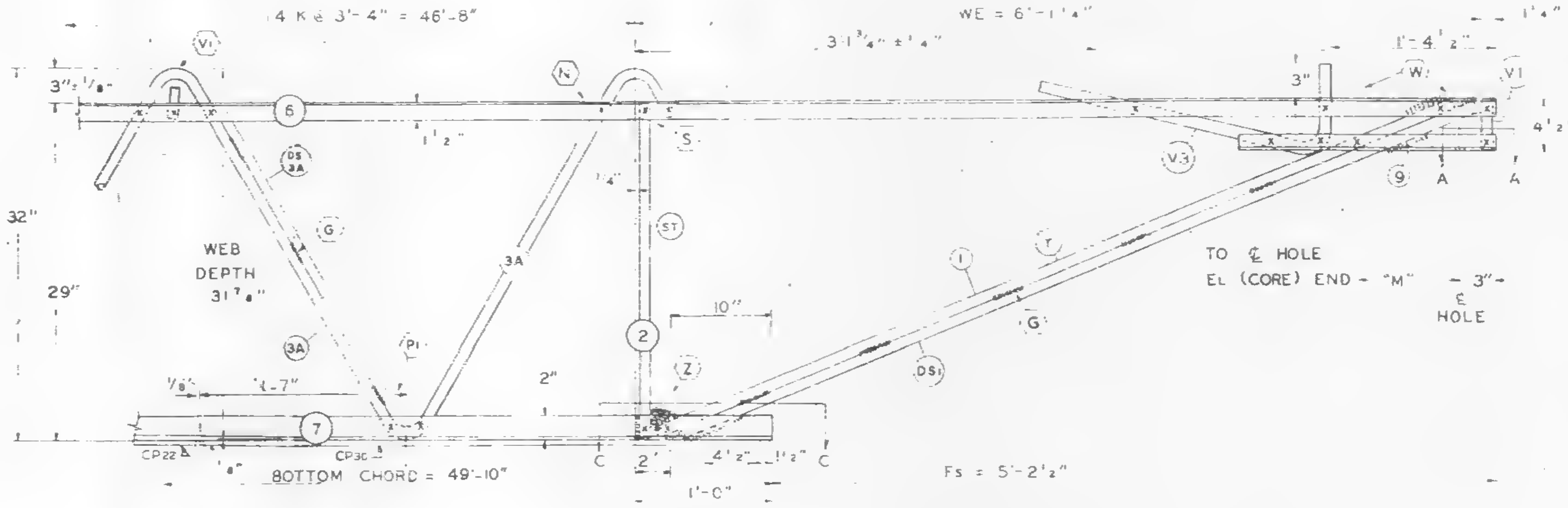
| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-24 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.D.N.Y.A. | DATE | DRAWN BY: L.R. DATE: JAN. 20, 1969 | |
| APPROVED FOR FABRICATION BY: A.C. WEBER FOR FABRICATOR | DATE. | CHECKED BY: T.MCCRIRA DATE: JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO. DETAILED BY: A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST227N |

CL-4 CL-3 CL-2

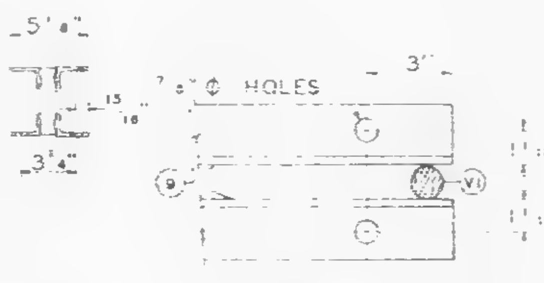
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |


OVERALL LENGTH = 59'-8"
14 K @ 3'-4 = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
R3 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
K
N TYPICAL
STS @ 3'-4"
WEv
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP22
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

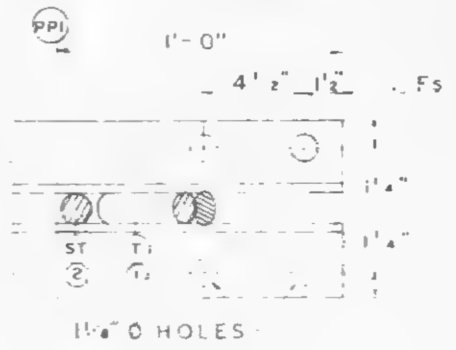


Es END (COLUMN)



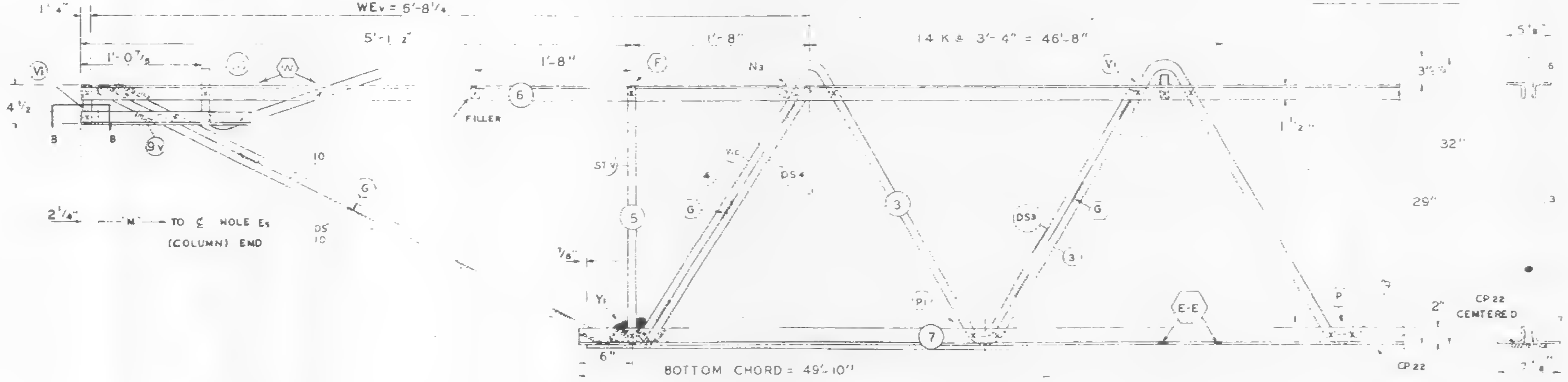
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST286
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM



SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS

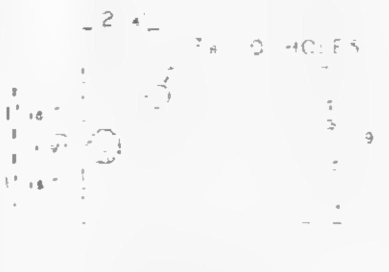


EL END (CORE)

| NO | DATE | REVISION | BY |
|---|---|---|---|

REF DRWG

| | |
|---|---|
| 7-AB1-25 | 1-6-68 |
| 7-AB4-50 | 9-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |



SECTION B-B

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄ ℄ HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | (3) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T28C59 | | A242 | 2"x1½"x 37" | 59'-8" | 7 | A36 | 3"x 2"x 37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 33'-4 3/4<br>34'-8 1/2 | 8 1/2 K@3'-4' = 28'-4"<br>5 1/2 K@3'-4' = 18'-4" | 11 | 1.14 | 59'-2¾" | 4 | 1.14 | 3" | CP 22 | A36 | 6½"x.50 | 45'-6" | DS 3A | A242 | .92 | 2'-5¾" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C3[illegible]8C5[illegible]8 | 9 | A242 | 2"x1½"x.37" | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS 1 | A242 | .98 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| CHORD PLATE | | | |
|---|---|---|---|
| MK | TYPE STEEL | SIZE | LENGTH |
| CP 30 | A36 | 6½"x.50 | [illegible] |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T28C 598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8¼ | 10 | A242 | 1.14 | 5'-4¼ | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜ | | | | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'-9½" | [illegible] | A242 | .98 | 2'-9½" | DS 10 | A242 | .98 | 5'-4¼" | DS 3 | A242 | [illegible] | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

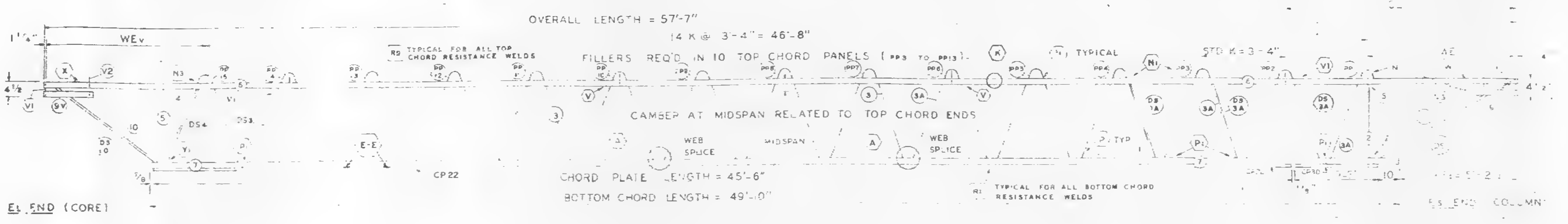
FLOOR TRUSS C32T28C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

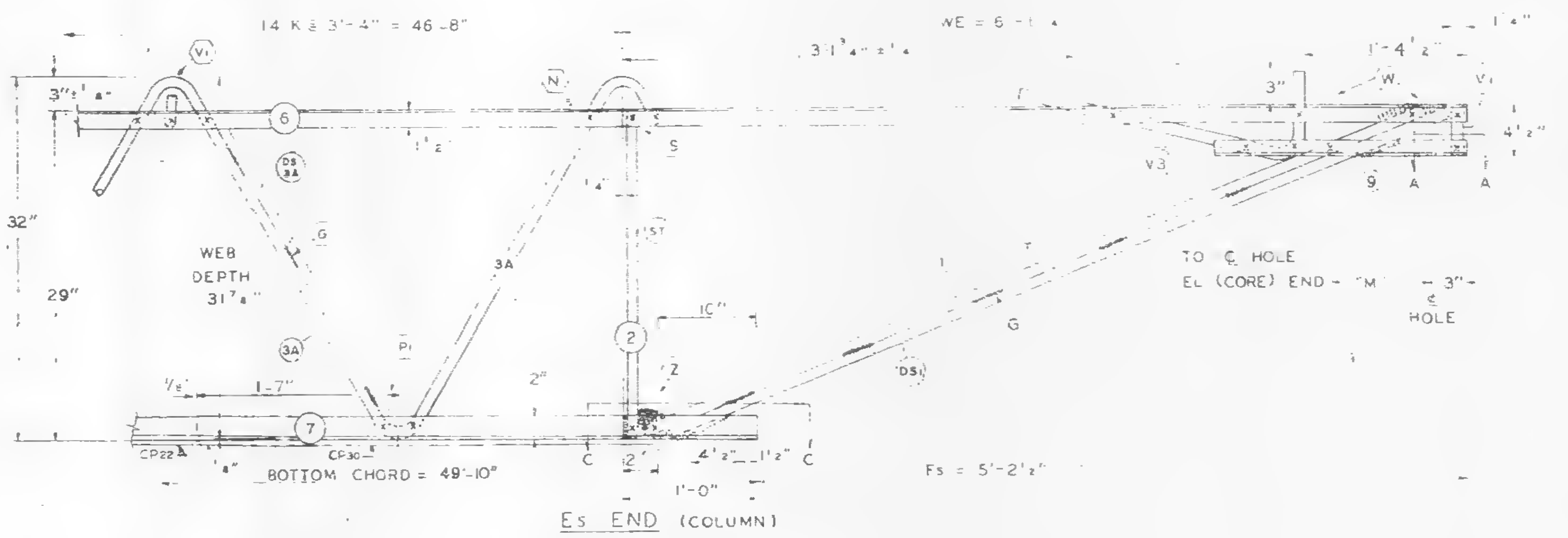
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-25 | PLATE |
| APPROVED FOR FABRICATION BY James Ivt..Co FOR P.O.N.Y.A | DATE 6/4/69 | DRAWN BY: [illegible]<br>DATE: APRIL 17, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: T.M.CHUBA<br>DATE: APRIL 17, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST228C |

## FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL [illegible] | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 3 7/8" | ± 1/4" |

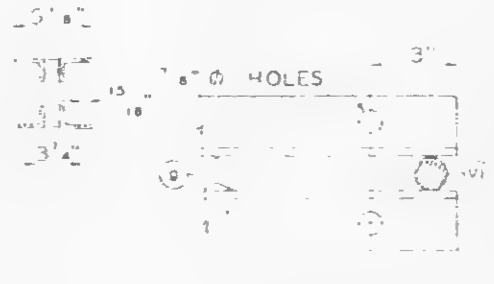

CL-4
CL-3
CL-2
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
WEv
1 1/4"
4 1/2
RS TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD K = 3'-4"
AE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
E-E
TYP
CP22
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
RI TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
EL END (CORE)
Es END COLUMN

## TRUSS ELEVATION

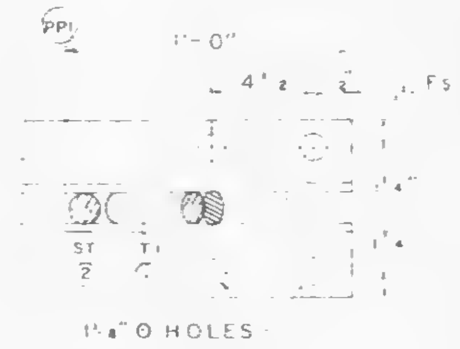


## Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST286
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS IN A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM [illegible] PI

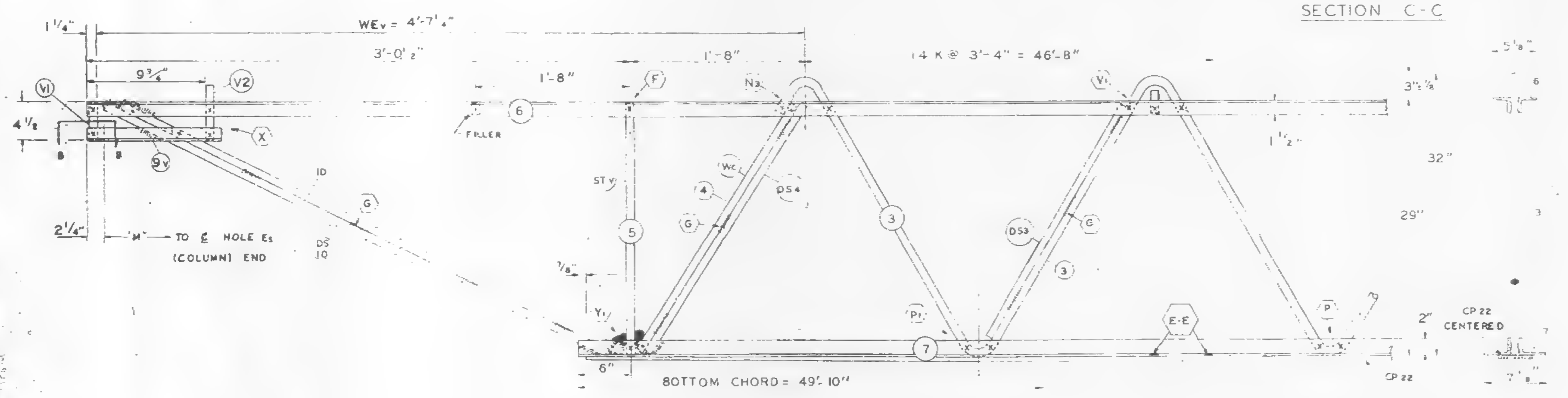


## SECTION A-A

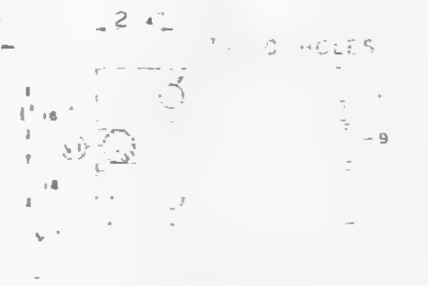


DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS

## SECTION C-C



## EL END (CORE)



## SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF DRWG

| | |
|---|---|
| 7-AB1-25 | 1-8-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | (3) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T28P5 | 6 | A242 | 2"x1½"x.37" | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 53'-4 3/4<br>34'-8 1/2 | 8 1/2 K@3'-4"=28'-4"<br>5 1/2 K@3'-4"=18'-4" | 11 | 1.14 | 57'-1¾" | 4 | 1.14 | 3" | CP 22 | A36 | 6½"x.50 | 45'-6" | DS 3A | A242 | .92 | 2'-5¾" |

**COLUMN END**

| END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C 28P 577 | 9 | A242 | 2"x1½"x.37" | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS 1 | A242 | .98 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 2'-2½" |

| MK | CHORD PLATE | | |
|---|---|---|---|
| | TYPE STEEL | SIZE | LENGTH |
| CP 30 | A36 | 6½x.50 | 3'-5" |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DO[illegible] "T" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | | | |
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | | LENGTH |
| C32T28P 57 | 9 | A242 | 2"x1½"x.37 | 11¾" | 4'-7¼ | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | | | | 4 | A242 | 1 | 1.14 | 2'-9½ | 4 | A242 | .98 | 2'-9½" | DS 10 | A242 | .98 | 3'-7" | DS 3 | A242 | .98 | 2'-6¾" |

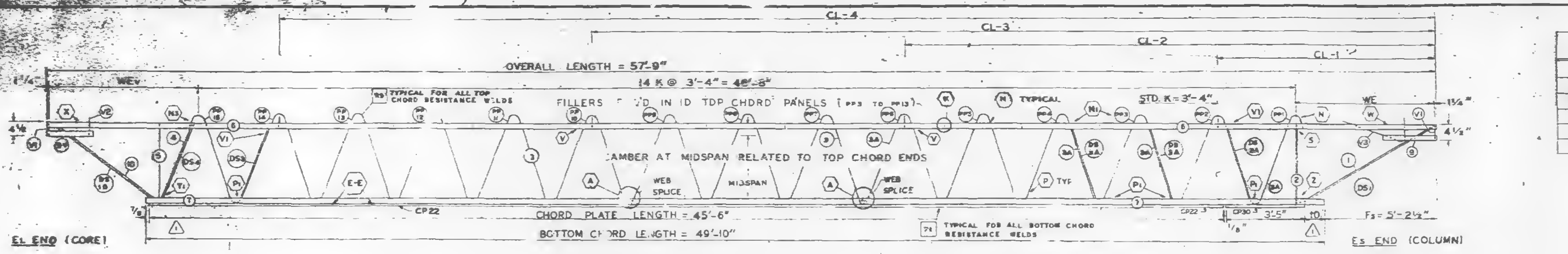
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T28P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-25 | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR PONYA | DATE 6/4/69 | DRAWN BY: [illegible]<br>DATE. APRIL 25, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY. T.M.CHURA<br>DATE APRIL 25, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A C WEBER | | FABRICATION CONT NO. W T C. 221 | SHEET NO. ST228P |

| [illegible] | | |
|---|---|---|
| | [illegible] | [illegible] |
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | 4" |
| PANEL "K" | 3'-4" | '4" |
| OVERALL LENGTH | 5' 3" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

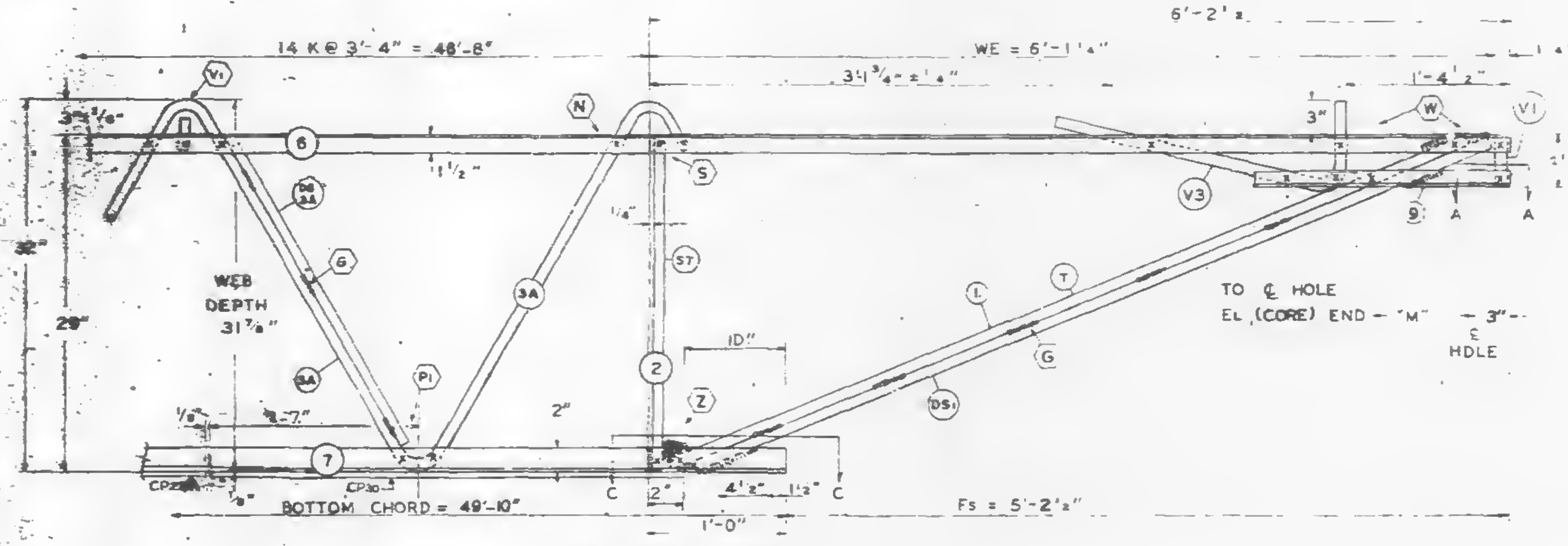


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD. K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP22
CP30
3'-5"
Fs = 5'-2½"
4½"
1¼"

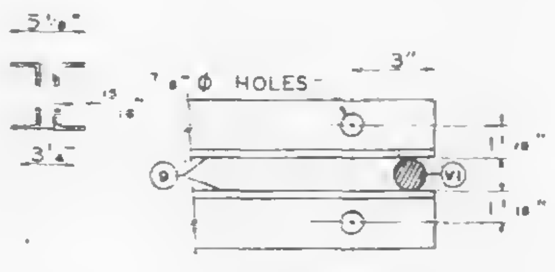
EL END (CORE)

Es END (COLUMN)

## TRUSS ELEVATION

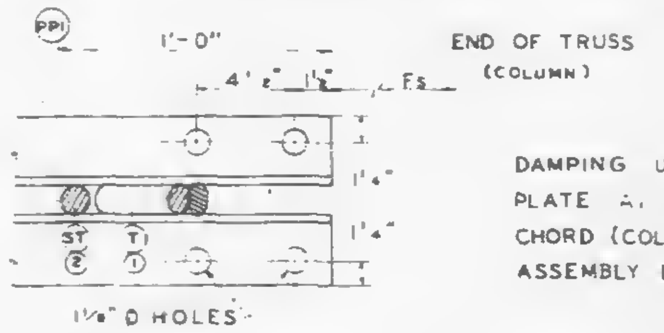


Es END (COLUMN)



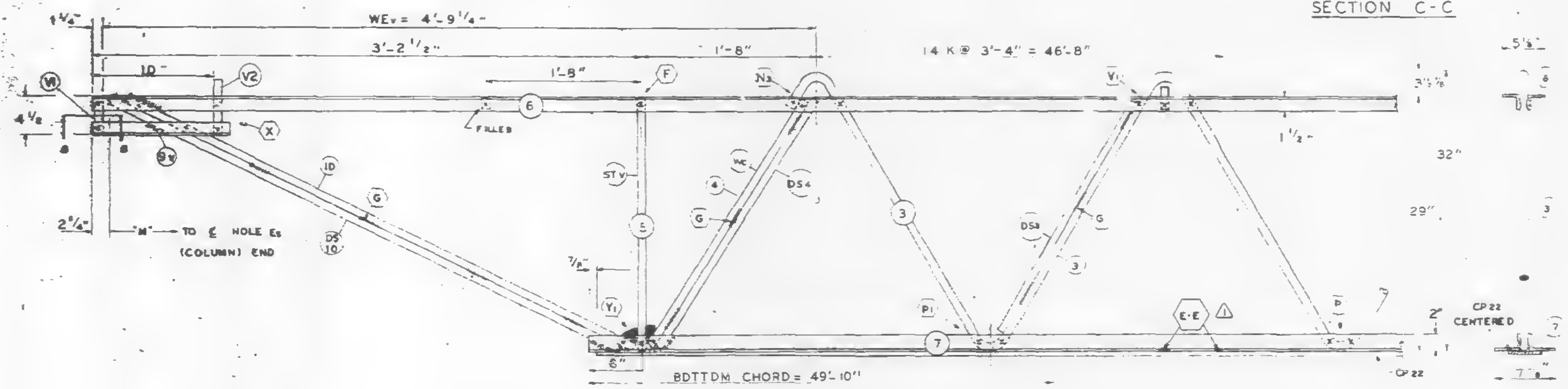
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286 ⚠1
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R1



SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.

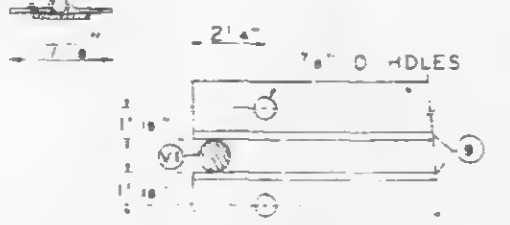


EL END (CORE)

| ⚠1 | 2-18-69 | AS NOTED | TMC |
|---|---|---|---|
| NO | DATE | REVISION | BY |

REF DRWG.

| | |
|---|---|
| 7-AB1-25 | 1-6-68 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-68 |
| 7-AB1-53 | 7-22-68 |



SECTION B-B

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C_C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | (3) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T28N-579 | 6 | A242 | 2"x1½"x.37" | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 53'-4 3/4<br>34'-3 1/2 | 8 1/2 K@3'-4" = 28'-4"<br>5 1/2 K@3'-4" = 18'-4" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x.50 | 45'-6" | DS 3A | A242 | .92 | 2'-6¾" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK 3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | | C32T28N-579 | 9 | A242 | 2"x1½"x.37" ⚠1 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | [illegible] | DS1 | A242 | .98 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB<br>LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

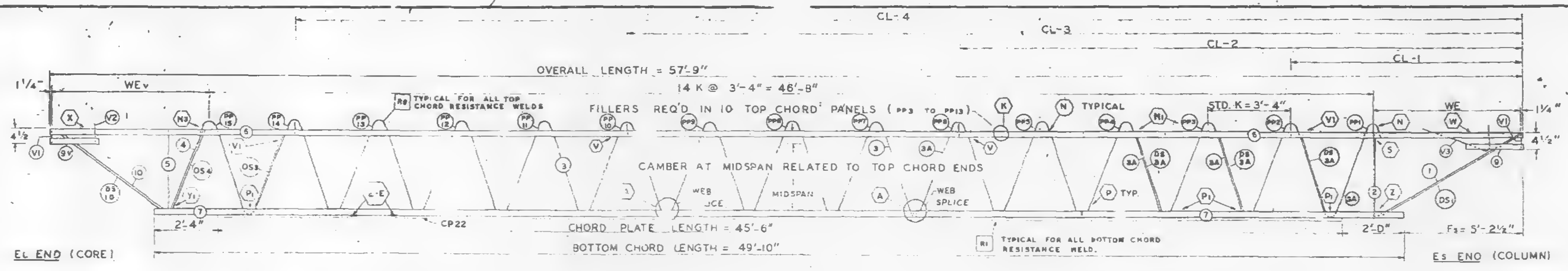
| CHORD PLATE ⚠1 | | | |
|---|---|---|---|
| MK | TYPE STEEL | SIZE | LENGTH |
| CP30 | A36 | 6½ x .50 | 3'-5" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT ⚠1 | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT ⚠1 | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T28N-579 | 9 | A242 | 2"x1½"x.37 ⚠1 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-9¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅛" | | | | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .98 | 2'-9½" | DS10 | A242 | .98 | 3'-8¼" | DS3 | A242 | .98 | 2'-6¾" |

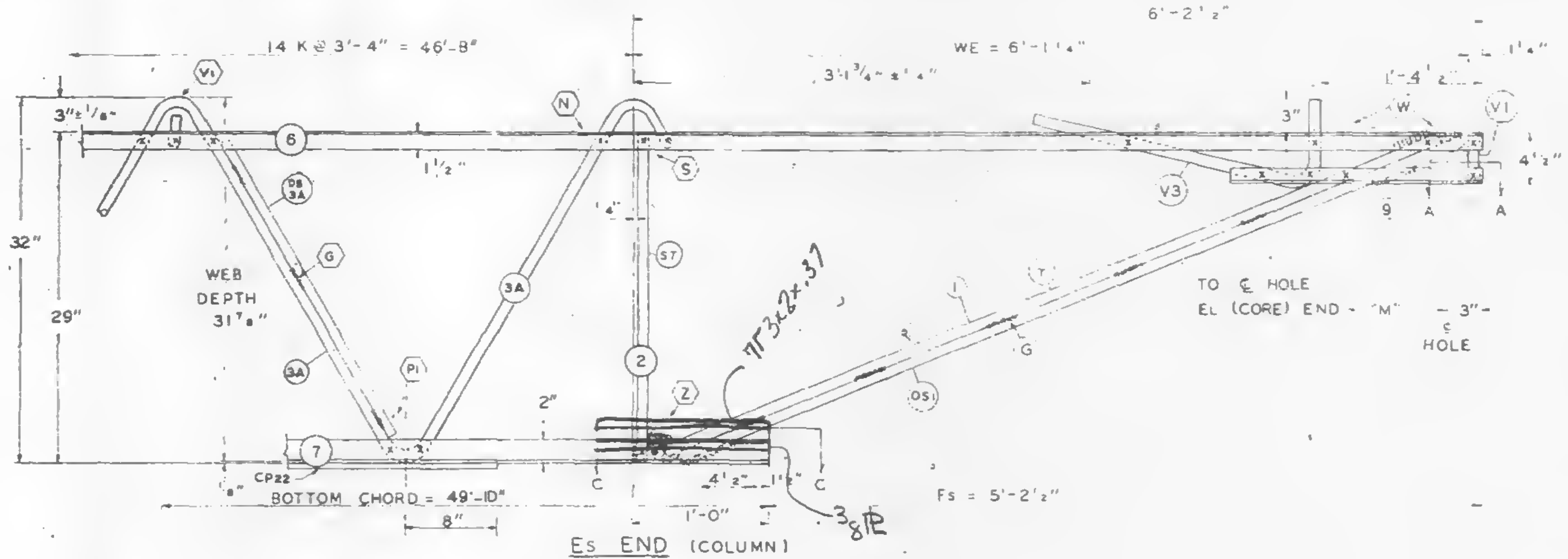
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T28N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

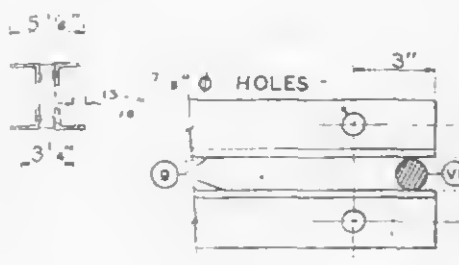
| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-25 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. | DATE [illegible] | DRAWN BY: [illegible]<br>DATE: JAN. 20, 1969 | |
| APPROVED FOR FABRICATION BY ______ FOR FABRICATOR | DATE | CHECKED BY: T.B.[illegible]<br>DATE: JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED LACLEDE STEEL CO. | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST22[illegible] |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
1¼"
WEv
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD. K = 3'-4"
4½"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
2'-4"
CP22
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELD.
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

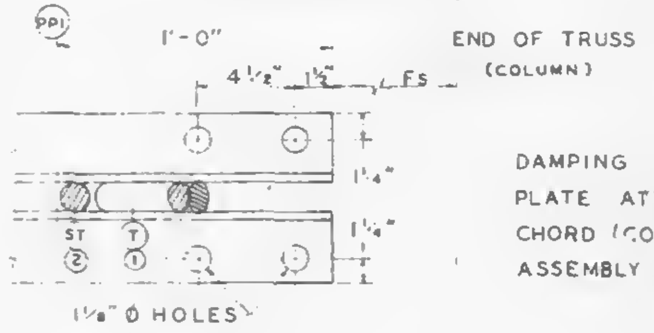
TRUSS ELEVATION



Es END (COLUMN)

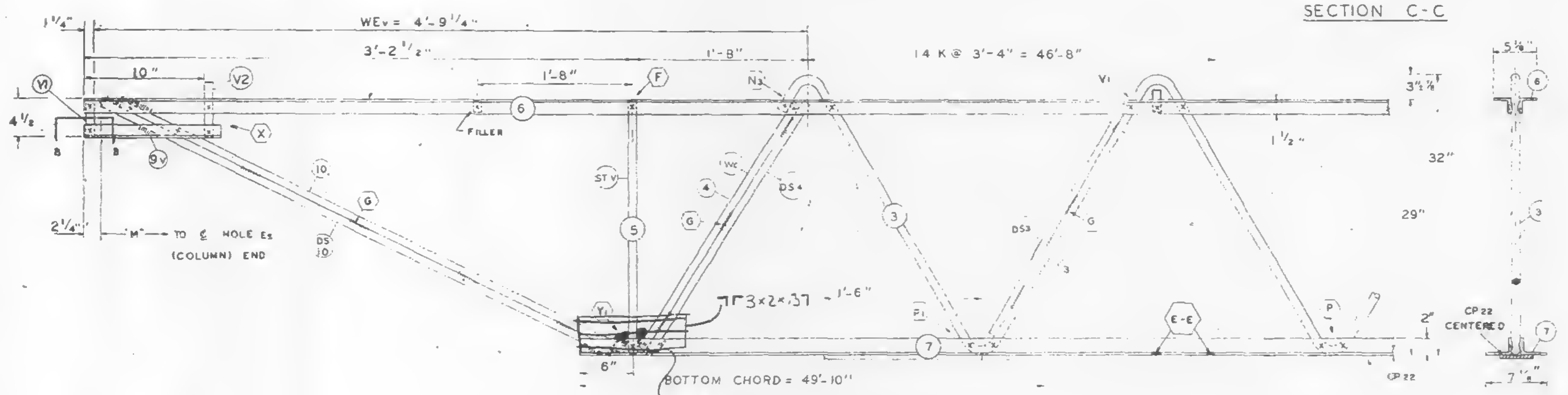


SECTION A-A

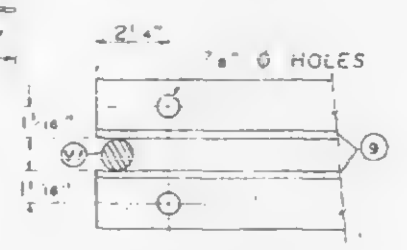


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.



EL END (CORE)



SECTION B-B

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | /4" |
| OVERALL LENGTH | 57'-9" | - 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST287.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R1

| REF DRWG. | |
|---|---|
| 7-A81-25 | 1-6-66 |
| 7-A84-5D | 6-1-66 |
| 7-A83-41 | 1-6-69 |
| 7-A81-53 | 7-22-66 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | (3) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH |
| C32T28N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 53'-4 3/4<br>34'-8 1/2 | 8 1/2 K@3'-4" = 28'-4"<br>5 1/2 K@3'-4" = 18'-4" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x.50 | 45'-6" | DS3A | A242 | .92 | 2'-6¾" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T28N-579 | 9 | A242 | 2"x1½"x(25) | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4¼" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .96 | 6'-3⅛" |

.37

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

SKILLING HELLE
CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
2 | 9 | 69 SK

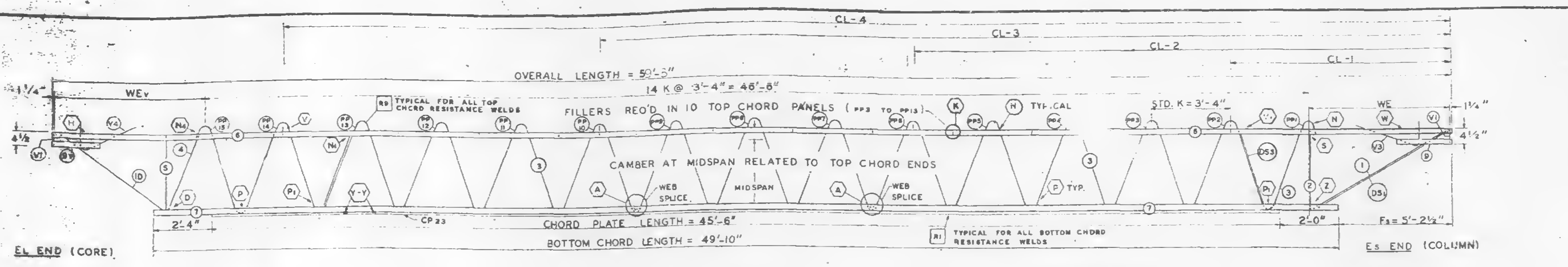
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "WC" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T28N-579 | 9 | A242 | 2"x1½"x(25) | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7⅜" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | | | | 4 | A242 | 1 | 1.14 | 2'-9⅛" | DS4 | A242 | .98 | 2'-9½" | DS10 | A242 | .98 | 3'-7⅜" | DS3 | A242 | .98 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

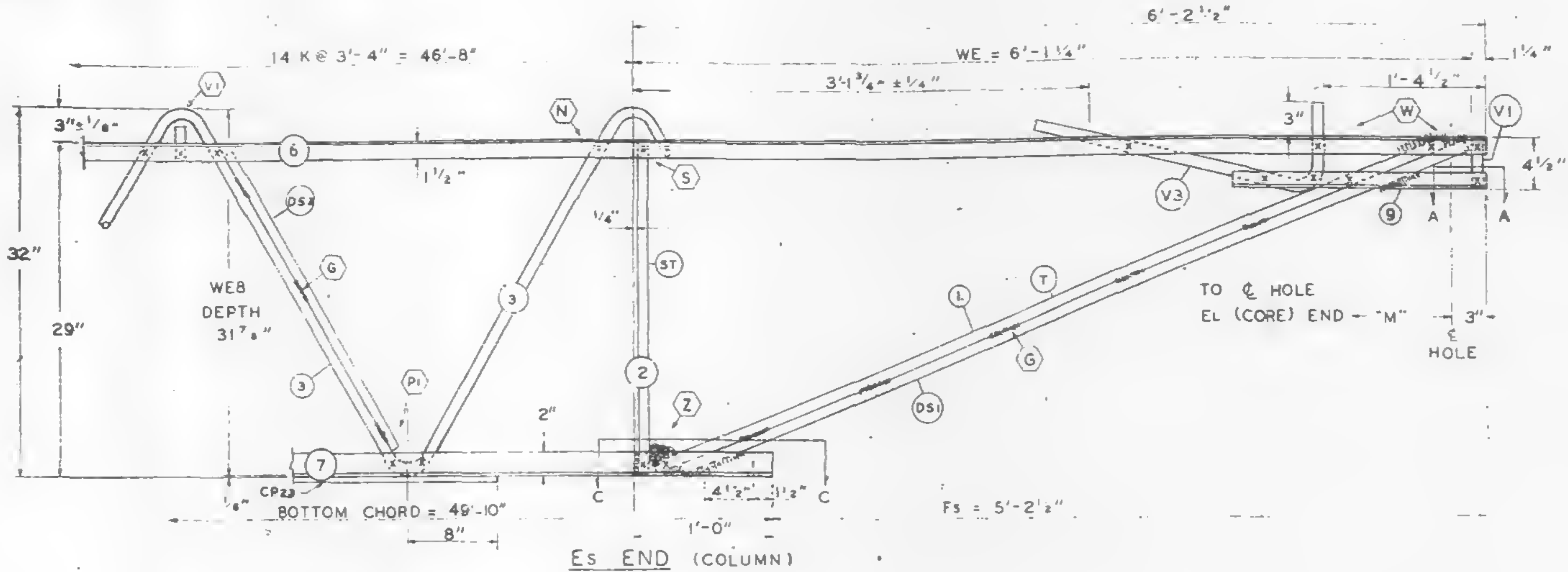
FLOOR TRUSS C32T28N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A&B

FABRICATION BY. LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS.
DESIGN DRAWING NO. 7-A81-25 PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
DRAWN BY: R.R DATE: JAN. 20, 1969
APPROVED FOR FABRICATION BY. A. C. WEBER FOR FABRICATOR DATE.
CHECKED BY: T.M.CHUBA DATE: JAN. 21. 1969
IN CHARGE OF PROD. DEV.
DETAILED BY: A. C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST228N


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-5"
14 K @ 3'-4" = 46'-8"
WEv
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD. K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP.
CP23
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-4"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

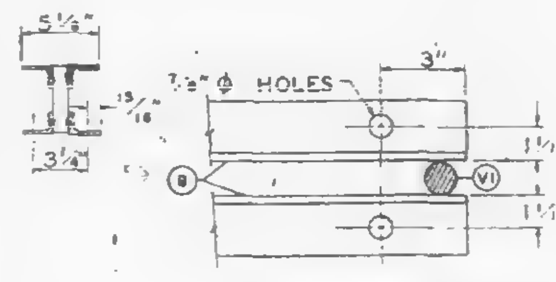
## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 28" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

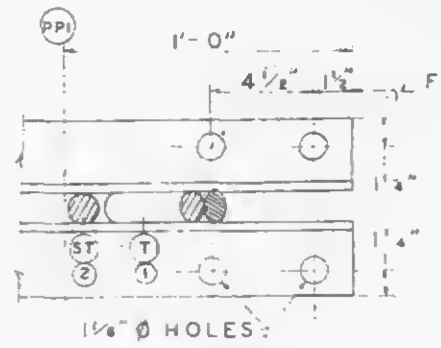


## Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST295
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAN, ie., R1



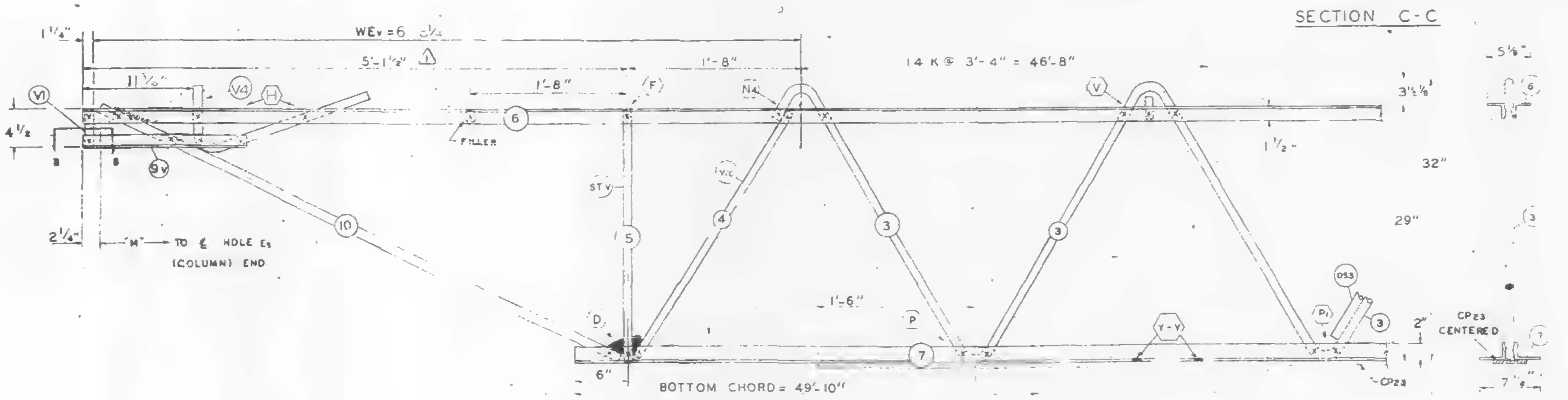
## SECTION A-A



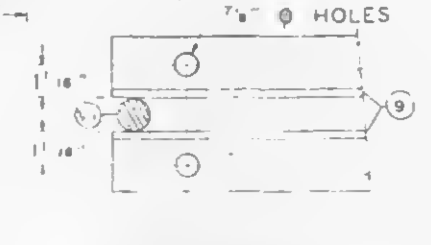
END OF TRUSS (COLUMN)

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS

## SECTION C-C



## EL END (CORE)



## SECTION B-B

| 1 | 6-12-69 | AS NOTED | G.D.C. |
|---|---|---|---|
| NO. | DATE | REVISION | BY |

| REF DRWG. | | |
|---|---|---|
| | 7-AB1-26 | 1-6-69 |
| | 7-AB4-50 | 8-1-68 |
| | 7-AB3-41 | 1-6-69 |
| | 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTRDCOAT
RED ND 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T29C598 | 6 | A242 | 2"x1½"x.37 | [illegible] | 7 | A36 | 3"x2"x 37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | [illegible] | 4 | 1.14 | 3" | CP23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| C32T29C598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A232 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3½" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

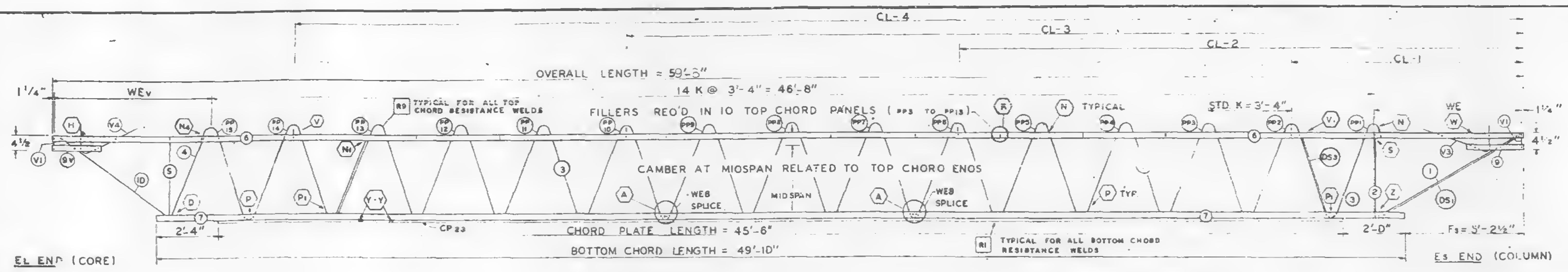
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE STRUT (REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | PCS | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T29C598 | 9 | A242 | 2"x1½"x .37 | 1'-6" | 6'-8¼ | 10 | A242 | 1.14 | 5'-5¾" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'-9½" | | | — | — | — | — | — | — | DS3 | A242 | .75 | 2'-8¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T29C 59'-5" OVERALL
WORLD TRADE CENTER TOWERS A & B

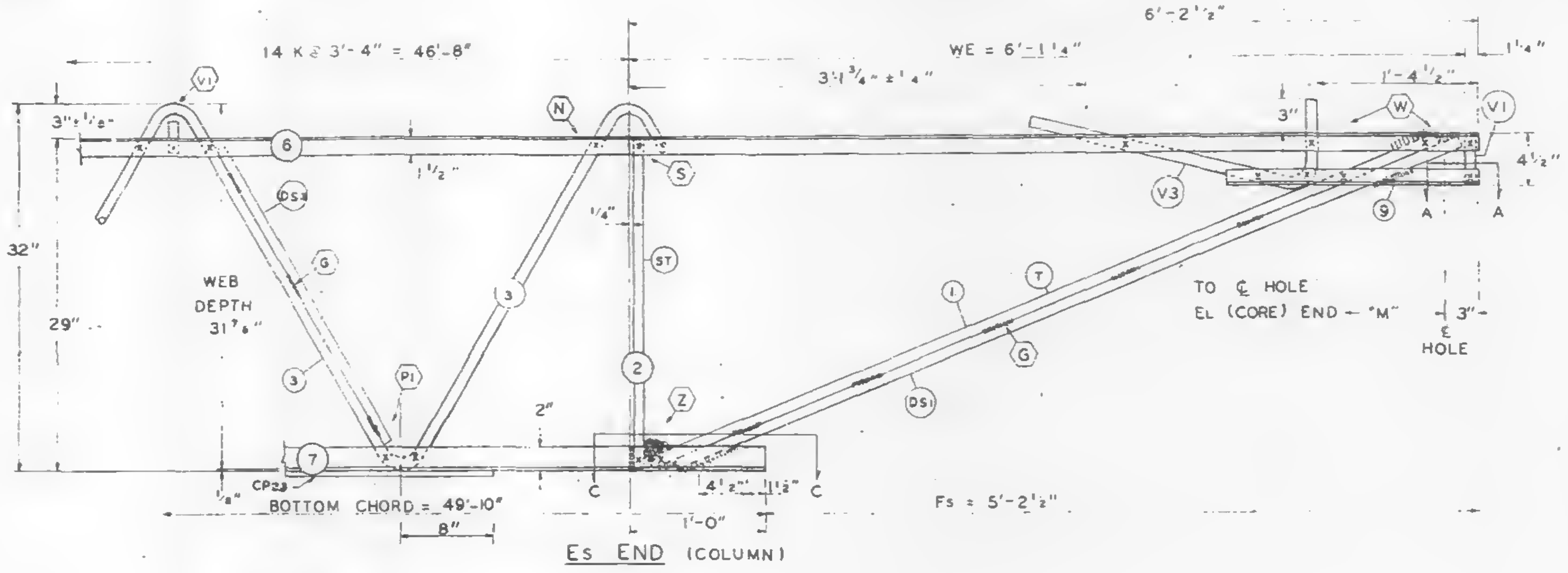
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-26
PLATE
APPROVED FOR FABRICATION FOR P.O.N.Y.A. DATE 7/28/69
DRAWN BY: [illegible] DATE: MAY 1, 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE.
CHECKED BY: [illegible] DATE: MAY 1 1969
IN CHARGE OF PROD. DEV.
LACLEDE STEEL CO.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST229C


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-5"
14 K @ 3'-4" = 46'-8"
WEv
R9 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
N TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP
CP23
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-4"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

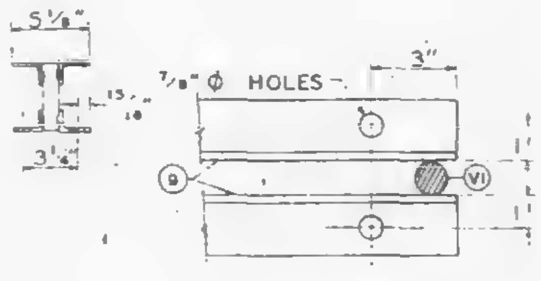
## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

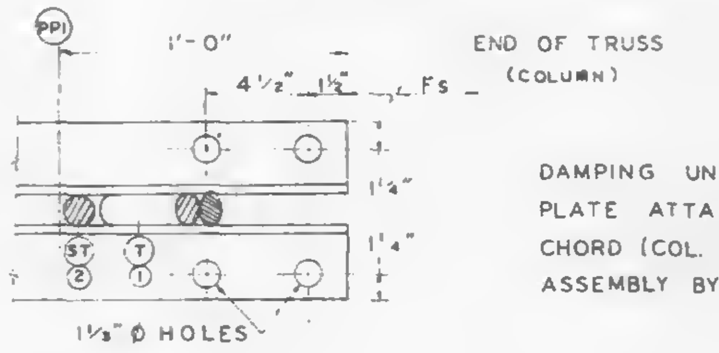
ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST285
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. ie., [R1]



## Es END (COLUMN)

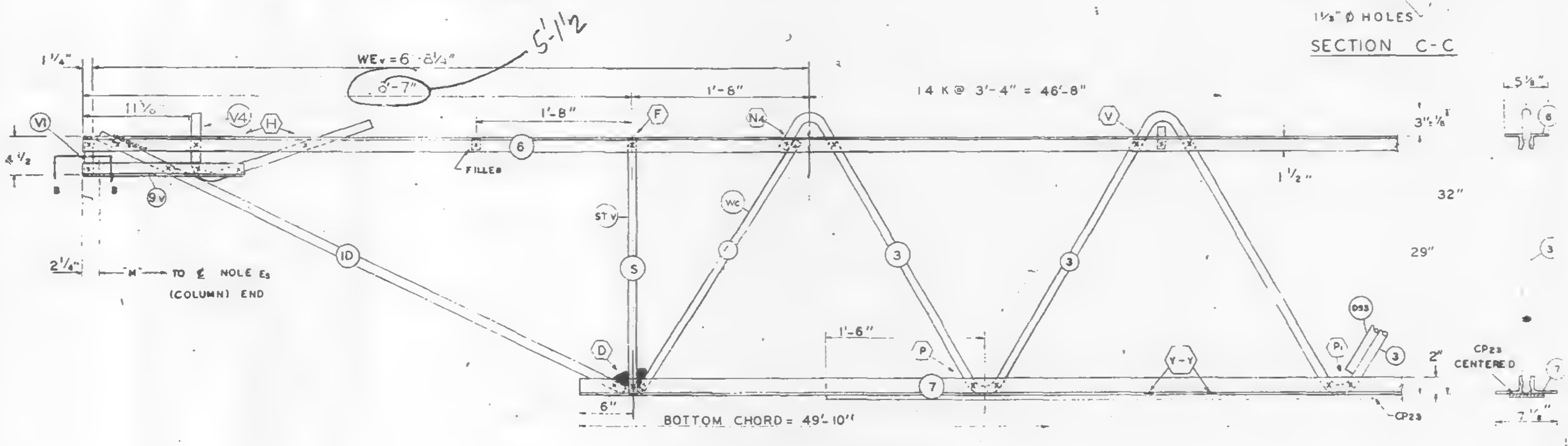


## SECTION A-A

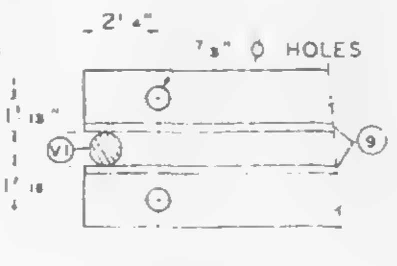


## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS.



## EL END (CORE)



## SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
6|4|69 SK

| REF DRWG. | | |
|---|---|---|
| | 7-AB1-26 | 1-6-69 |
| | 7-AB4-SD | 8-1-68 |
| | 7-AB3-41 | 1-6-69 |
| | 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE EL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO | DIA. | | [illegible] | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T29C598 | 6 | A242 | 2"x1½"x.37 | [illegible] | 7 | A36 | 3"x2"x 37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4"= 46'-8" | 11 | .14 | 59'-2¾" | 4 | 1.14 | 3" | CP23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| Fs END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T[illegible]598 | 9 | A242 | 2"x1½"x 37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½ |

CORE END

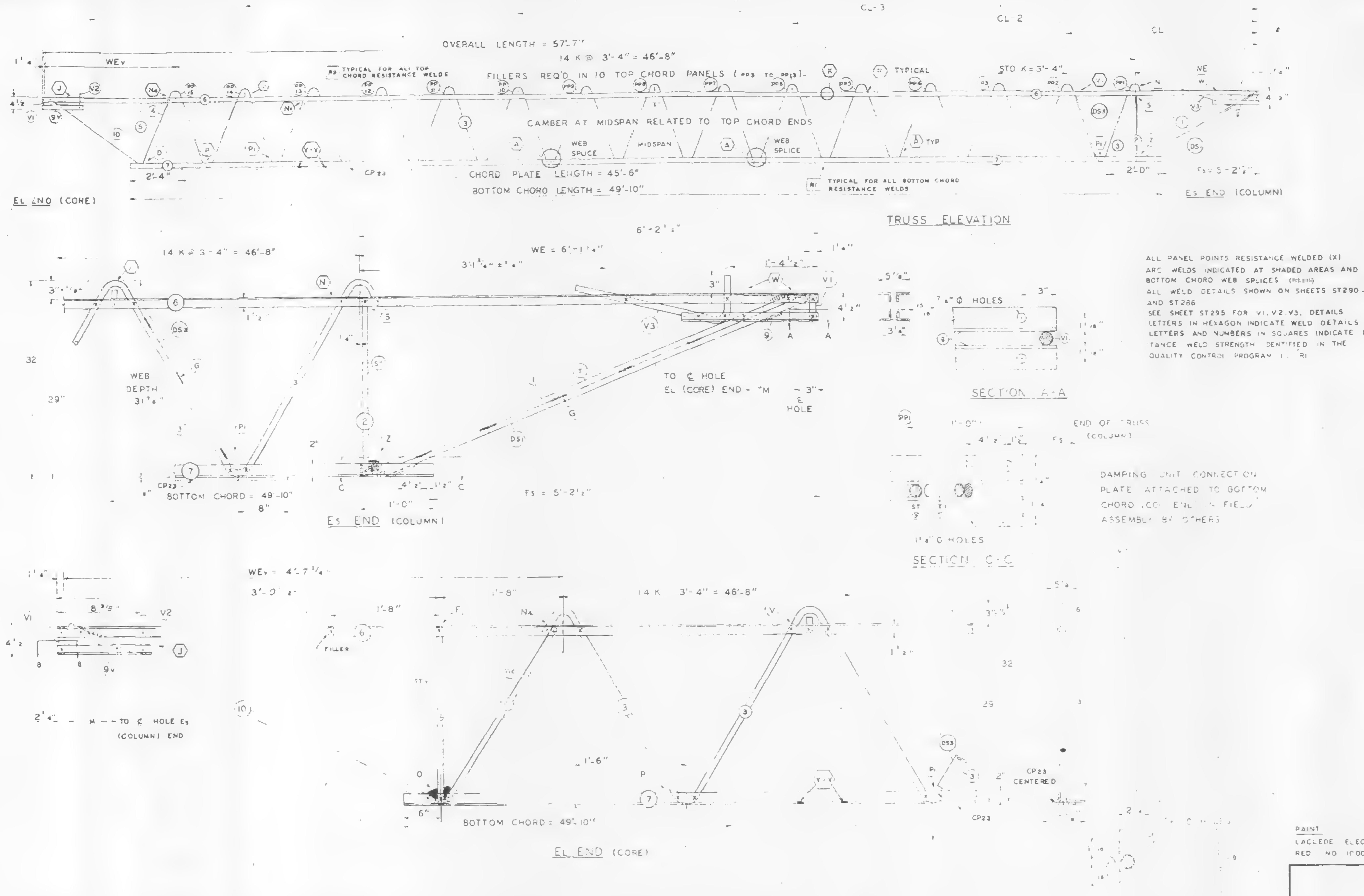
| END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE (REQ'D) STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTN | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | D. | LENGTH |
| | C32T29C598 | 9 | A242 | 2"x1½"x .37 | 1'-6" | 6'-8¼ | 10 | A242 | 1.14 | 5'-5½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" - | | | | A242 | 1.14" | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'-9⅛" | — | — | — | — | — | — | - | -- | DS3 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T29C 59'-5" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-26 | PLATE |
| APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. | DATE | DRAWN BY: L.R.<br>DATE: MAY 1, 1969 | |
| APPROVED FOR FABRICATION BY. ______ FOR FABRICATOR | DATE. | CHECKED BY: T.H.CHORA<br>DATE: MAY 1 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST229C |



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS [illegible] A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM [illegible] RI

FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/5" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

REF DRWG

| | |
|---|---|
| 7-AB1-26 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄-℄ HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T29P 57 | 6 | A242 | 2"x1½"x.37 | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 114 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | .14 | 57'-1¾" | 4 | 114 | 3" | CP23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| ES END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | 32T29P 577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 114 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 114 | 4⅜" | A242 | 114 | 2'-9½" | DS1 | A242 | 92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | -2½" |

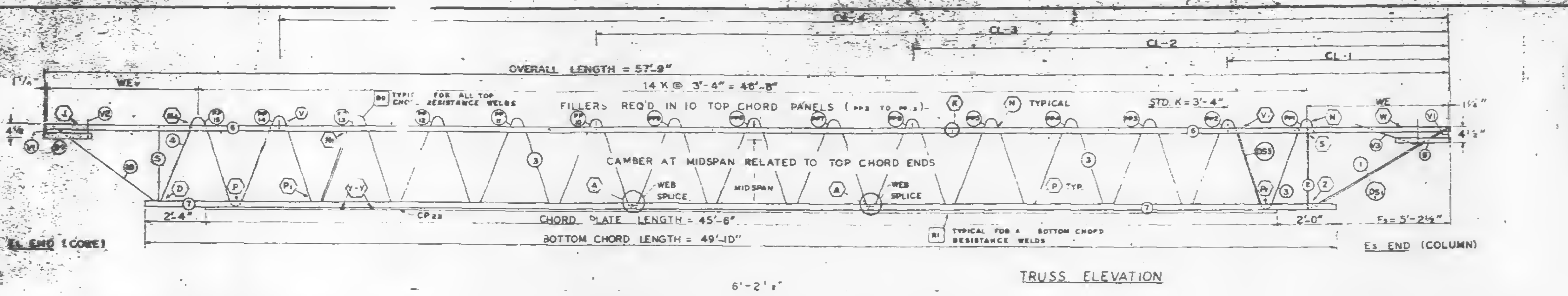
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE STRUT (REQD) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | A | LENGTH |
| | C32T29P 577 | 9 | A242 | 2"x1½"x.37 | 10¼" | 4'-7¼" | 10 | A242 | 1.14 | 3'-8½" | 5 | A242 | 114 | 2'-4⅞" | A242 | 114 | 4⅜" | A242 | 1.14 | 7⅜" | – | – | – | 4 | A242 | 1 | 114 | 2'-9 | – | – | – | – | – | – | – | – | DS3 | A242 | 75 | 2'-6¾" |

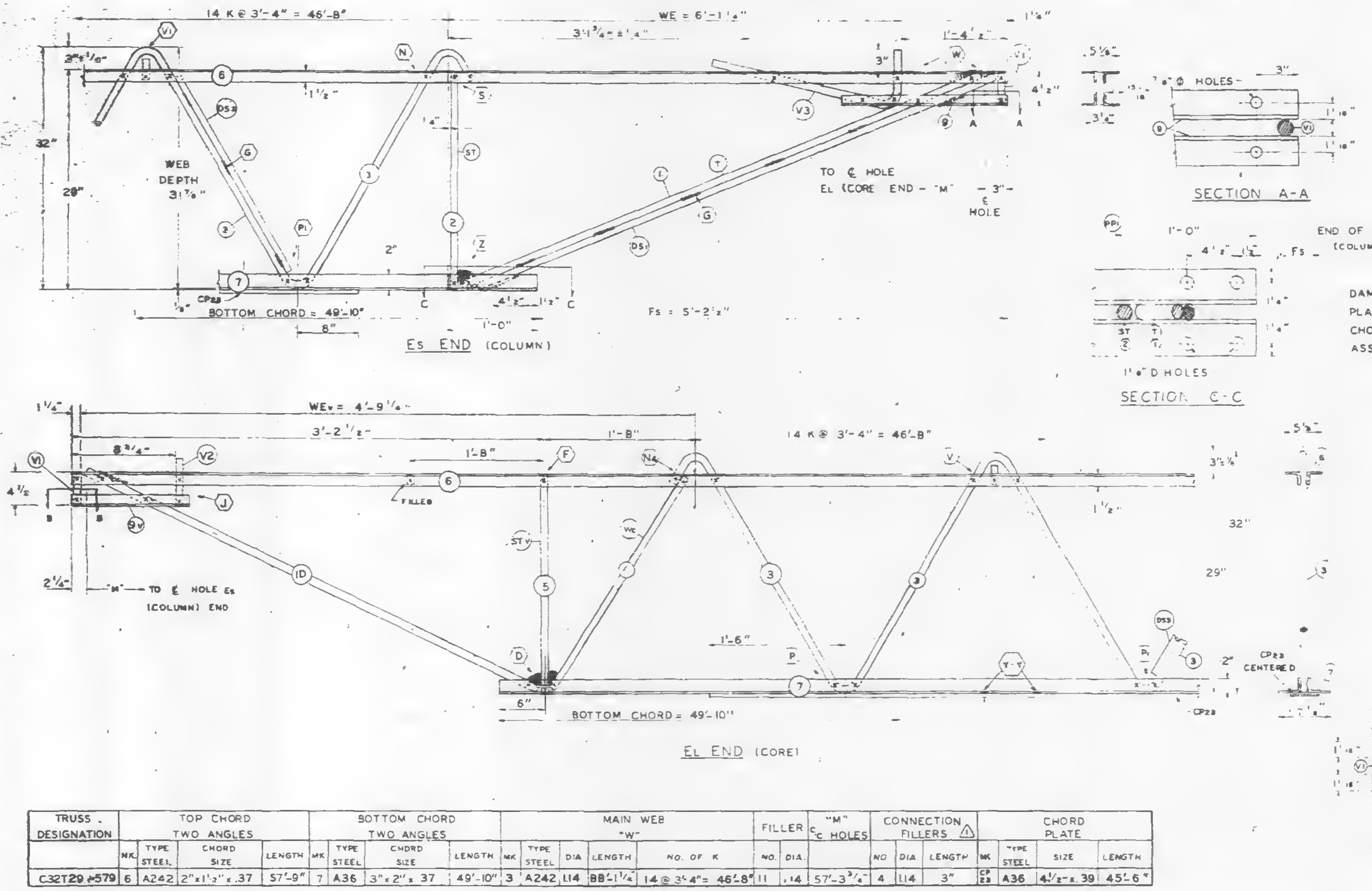
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T29P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A &B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-26 PLATE 1
APPROVED FOR FABRICATION BY [illegible] FOR PONYA DATE 6/4/69
DRAWN BY: [illegible] DATE: APRIL 25, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.N. GHUMA DATE: APRIL 25, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY: A C WEBER
FABRICATION CONT. NO. W T C. 221
SHEET NO. ST229P

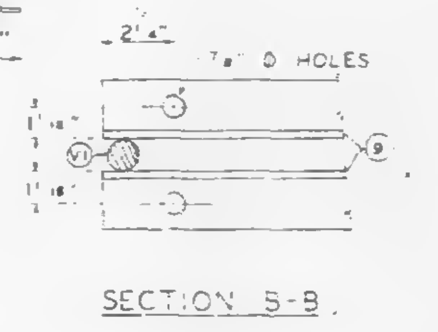

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS
TYPICAL
STD. K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP.
2'-4"
CP23
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
TRUSS ELEVATION

| | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] |
| DESIGN DEPTH | 28" | ± 1/16" |
| PANEL "K" | 3'-4" | ± 1/16" |
| OVERALL LENGTH | 57'-9" | ± [illegible] |
| WEB DEPTH | 31 7/8" | [illegible] |



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST283.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie. R1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY OTHERS



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 2-18-69 | BEARING ANGLE SIZE & CON FILLERS | LWN |

REF DRWG.

| | |
|---|---|
| 7-AB1-26 | 1-8-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS ⚠1 | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T29-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | .14 | 57'-3¾" | 4 | 1.14 | 3" | CP23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES ⚠1 | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | [illegible] | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | [illegible] | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T29N-579 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1½" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9 ½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES ⚠1 | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T29N579 | 9 | A242 | 2"x1½"x.37 | 10½" | 4'-9¼" | 10 | A242 | 1.14 | 3'-10" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" - | A242 | 1.14 | 7⅝" - | - | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | — | — | — | — | — | — | — | — | DS2 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

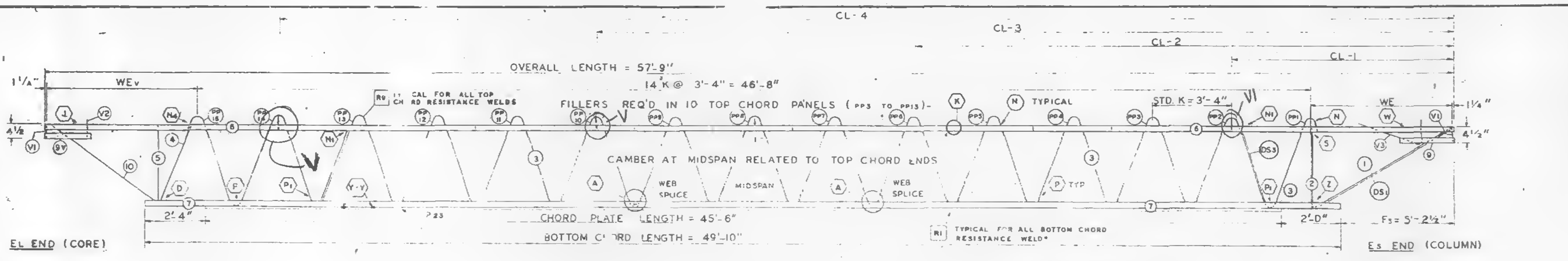
FLOOR TRUSS C32T29N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

| | | | |
|---|---|---|---|
| FABRICATION BY: LACLEDE STEEL COMPANY | | | |
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-26 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE 2/24/69 | DRAWN BY: [illegible] DATE: JAN 20 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR LACLEDE STEEL CO. | DATE. | CHECKED BY: [illegible] DATE: JAN 21 1969 | IN CHARGE OF PROJ. [illegible] |
| DETAILED BY: A.C. WEBER | | FABRICATION CONTR. NO. W.T.C. 221 | SHEET NO. [illegible] |

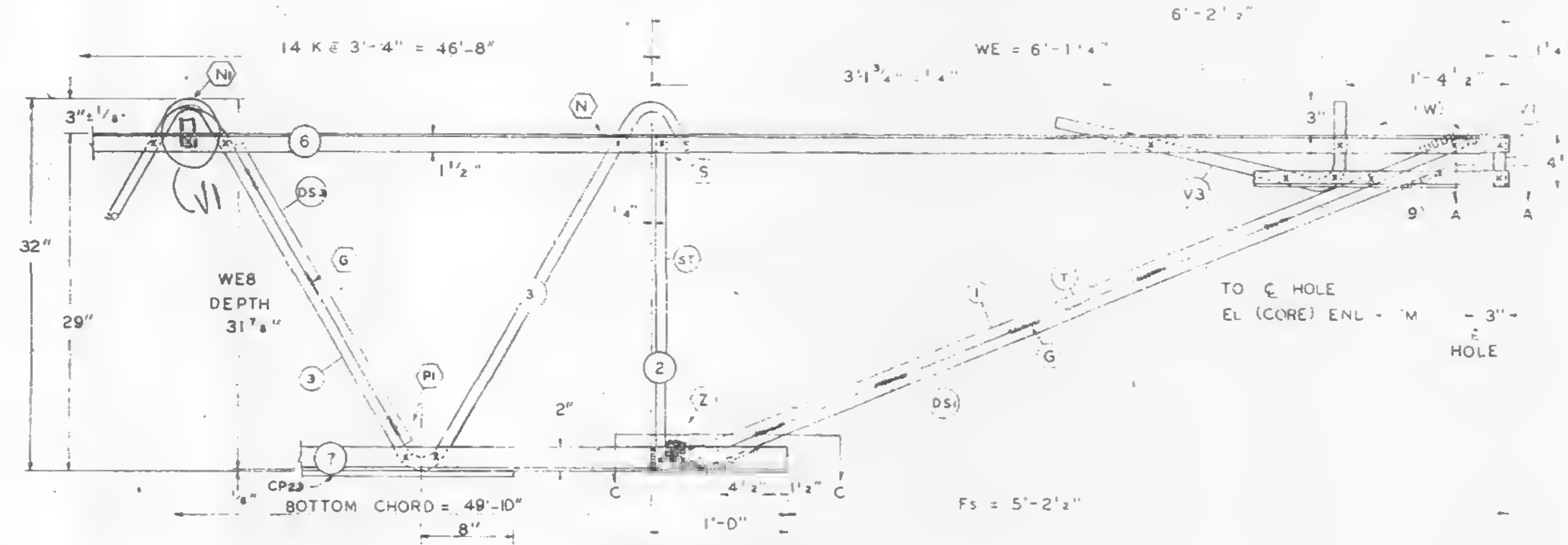
1

## FABRICATION REQUIRMENTS

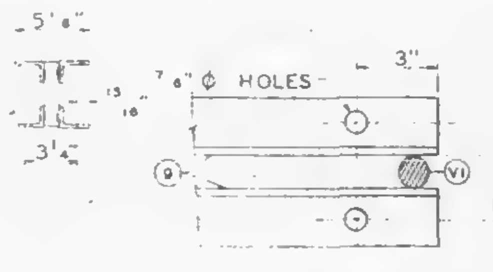
| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | 1/4" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
WE
1¼"
4½"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD. K = 3'-4"
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP
2'-4"
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

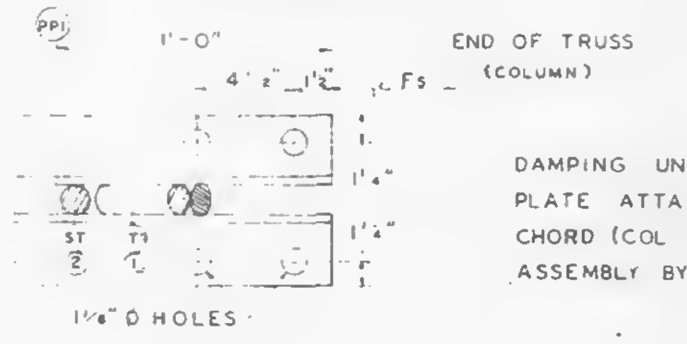
TRUSS ELEVATION



Es END (COLUMN)



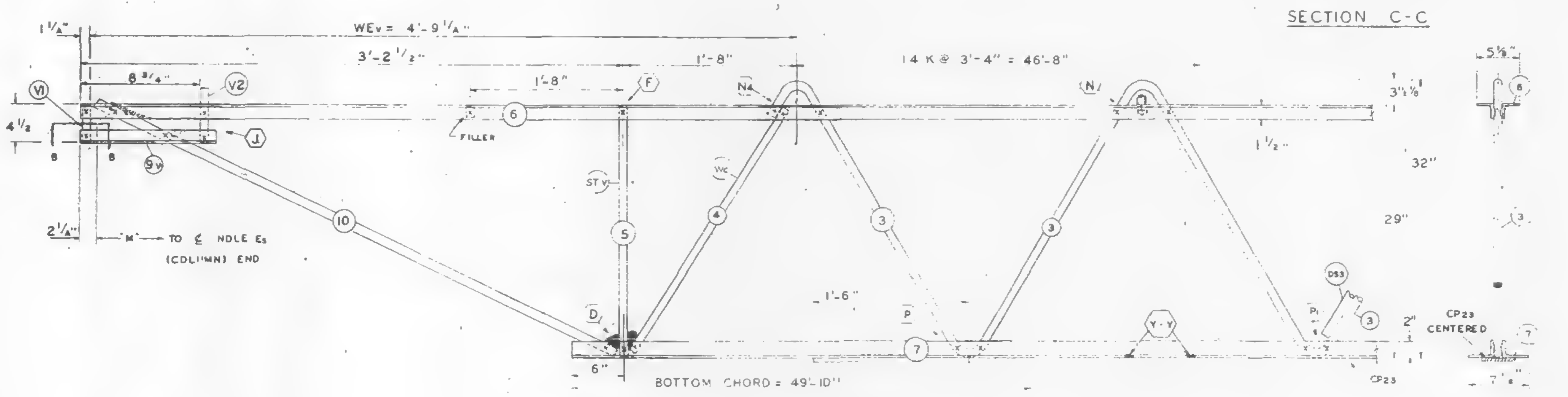
SECTION A-A



SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST287.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [RI]

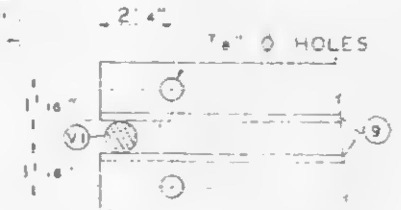
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.



EL END (CORE)

REF DRWG.

| | |
|---|---|
| 7-A81-28 | 1-6-69 |
| 7-A84-50 | 8-1-68 |
| 7-A83-41 | 1-6-69 |
| 7-A81-53 | 7-22-68 |



SECTION B-B

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T29-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | .14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3 | CP23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T29N-579 | 9 | A242 | 2"x1½"x.25 .37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

X

2/19/69 SK

CORE END

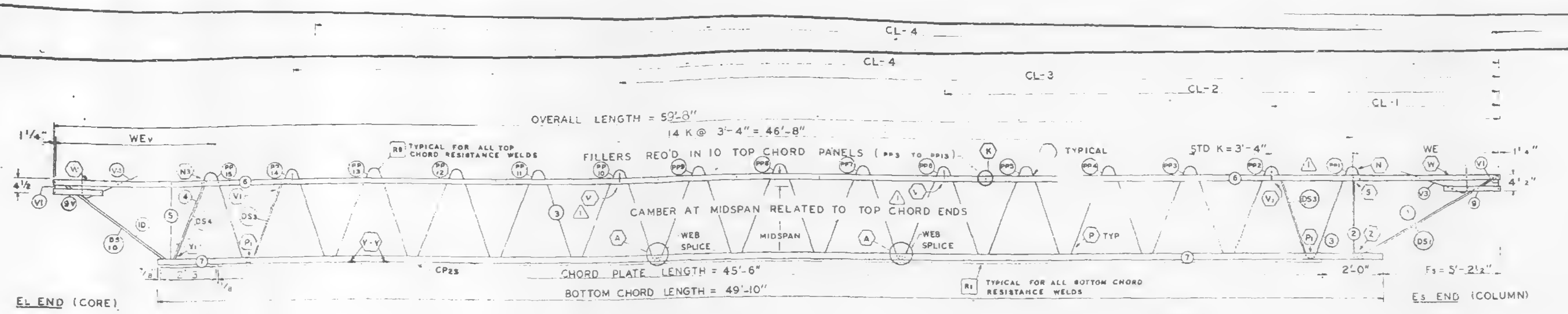
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T29N579 | 9 | A242 | 2"x1½"x.25 .37 | 10½" | 4'-9¼" | 10 | A242 | 1.14 | 3'-10" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | - | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | -- | — | — | — | — | — | - | — | DS3 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T29N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A&B

FABRICATION BY LACLEDE STEEL COMPANY

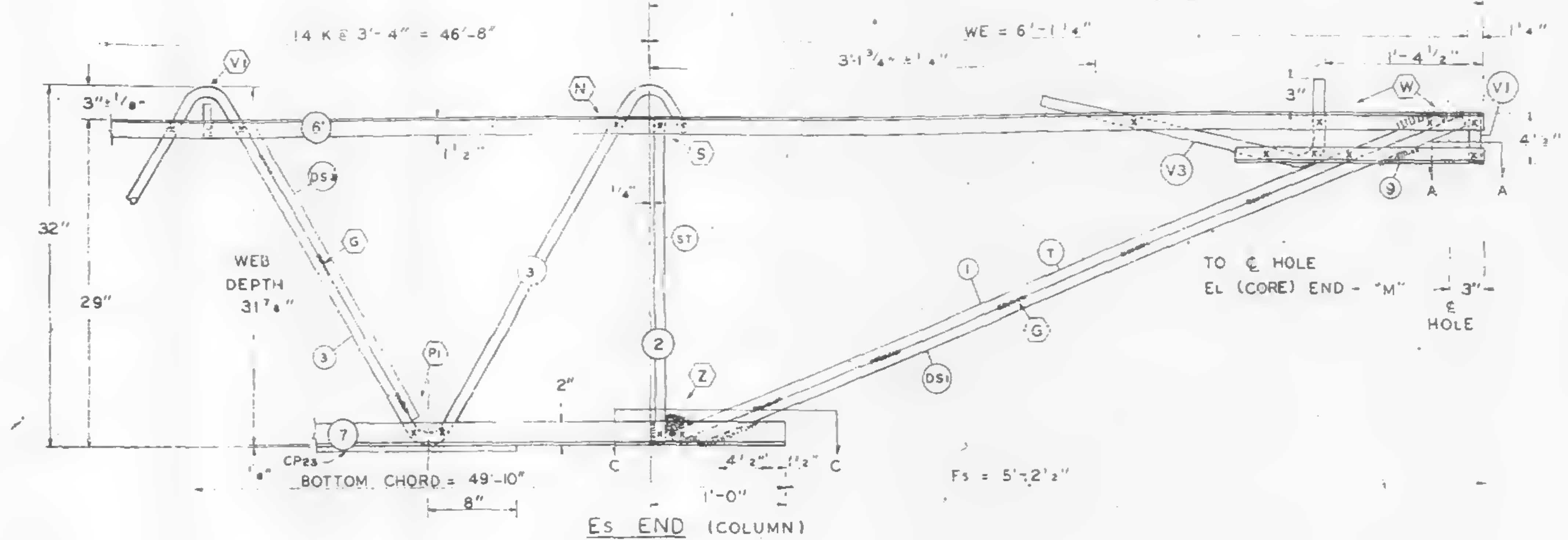
| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO 7-A81-28 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A | DATE | DRAWN BY: E.R.<br>DATE: JAN 20 1969 | |
| APPROVED FOR FABRICATION BY A C WEBER FOR FABRICATOR | DATE. | CHECKED BY: T.M.CHURA<br>DATE JAN 21, 1969 | IN CHARGE OF PROD. DEV |
| DETAILED BY A C WEBER | | FABRICATION CONT NO. W.T.C 221 | SHEET NO. ST229N |


CL-4
CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
1¼"
WEv
4½
RB TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD K = 3'-4"
WE
1¼"
4½"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP
CP23
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## FABRICATION REQUIRMENTS

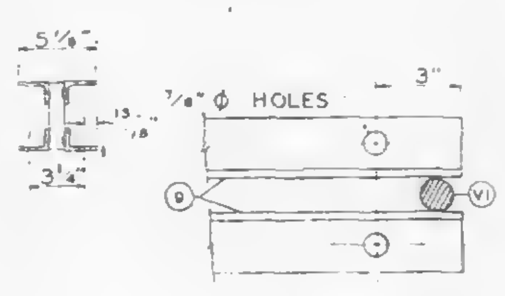
| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTN | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-5" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

TRUSS ELEVATION

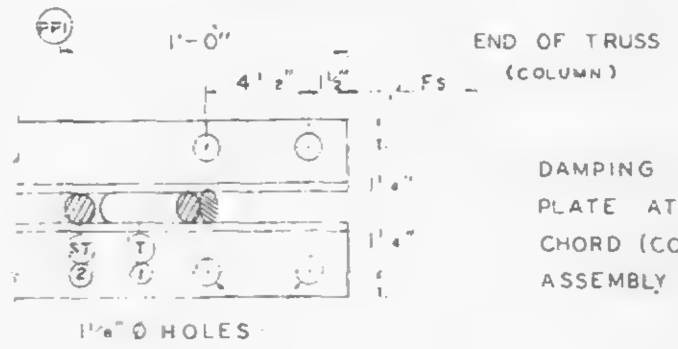


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (////////)
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST285.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R1]

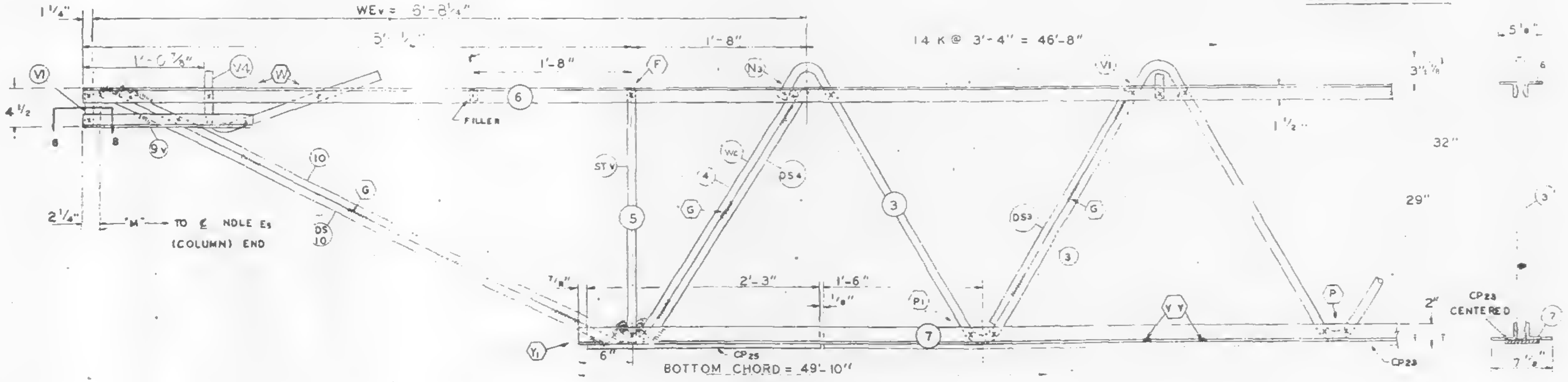


SECTION A-A

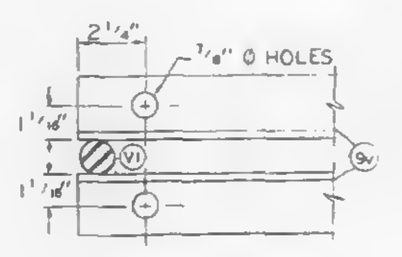


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 6-16-69 | AS NOTED | G.D.C. |

REF DRWG.

| | |
|---|---|
| 7-A61-27 | 1-6-69 |
| 7-A64-30 | 5-1-68 |
| 7-A63-41 | 1-6-69 |
| 7-A61-53 | 7-22-66 |

PAINT
LACLEDE ELECTROCOAT
REO NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | REINFORCING ANGLE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTN | MK | TYPE STEEL | DIA. | LENGTN | NO. OF K | NO | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTN | MK. | TYPE STEEL | ANGLE SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTN |
| C32T30C598 | 6 | A242 | 2"x1½"x.37 | 53'-5" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 9'-2¾" | 4 | 1.14 | 0'-3" | CP23 | A36 | 4½"x.39 | 45'-6" | — | — | — | — | CP25 | A36 | 4½" x .39" | 2'-3" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| C32T30C598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6' | 5'-2½" |

CORE END

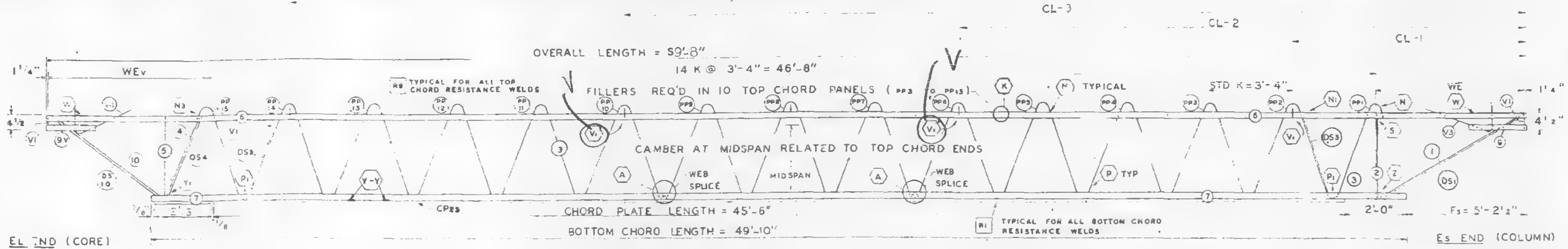
| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE STRUT (REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTN | | MK | TYPE STEEL | DIA | LENGTN | MK. | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTN | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | STEEL | DIA | LENGTH |
| C32T30C598 | 9 | A242 | 2"x1½"x.37 | 1'-5" | 6'-8¼" | 10 | A242 | 1.14 | 5'-4¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | | | | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2' | DS4 | A242 | .75 | 2'-9⅛" | 10 | A242 | .92 | 5'-4¼" | 3 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

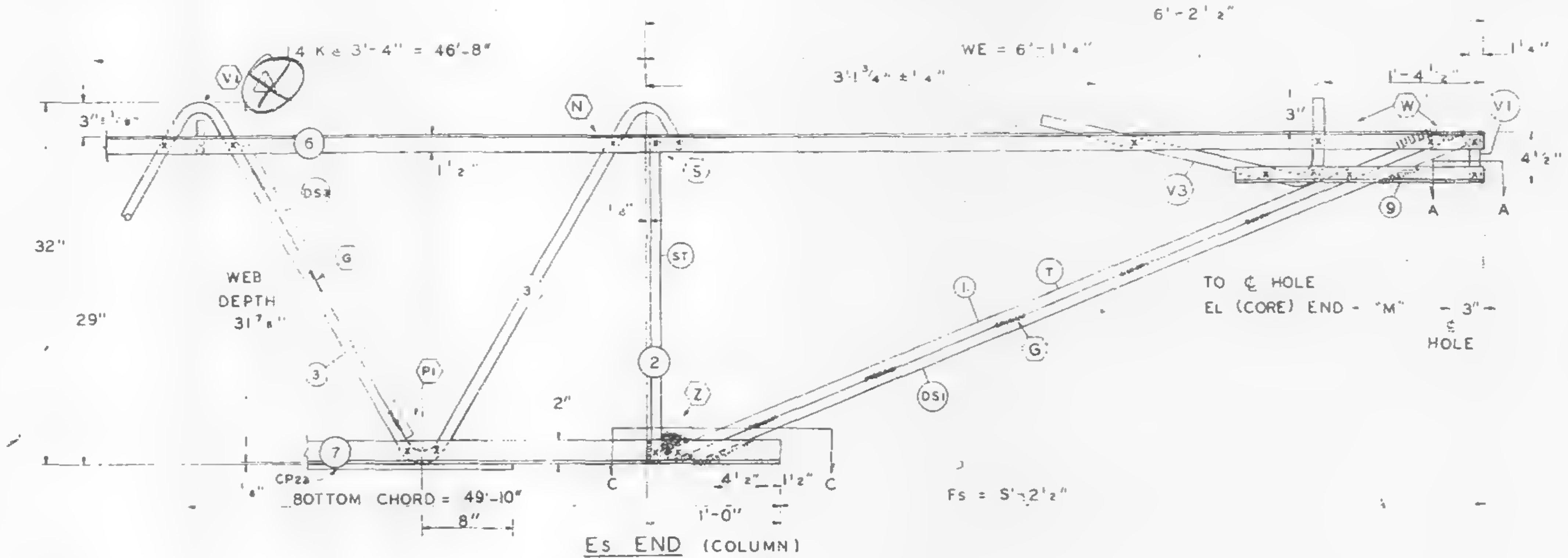
FLOOR TRUSS C32T30C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

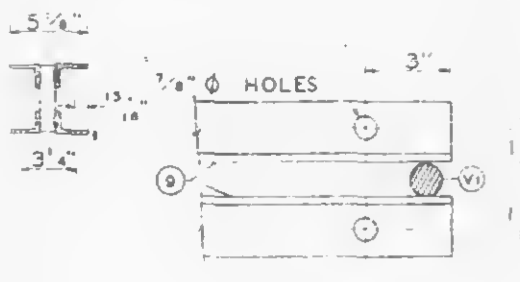
| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A61-27 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. | DATE 7/22/69 | DRAWN BY: [illegible] DATE: APRIL 29, 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR LACLEDE STEEL CO. | DATE. 1 | CHECKED BY: [illegible] DATE: APRIL 29, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST230C |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD K = 3'-4"
WEv
WE
1'-4"
4 1/2"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
CP25
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
Fs = 5'-2 1/2"
EL END (CORE)
Es END (COLUMN)

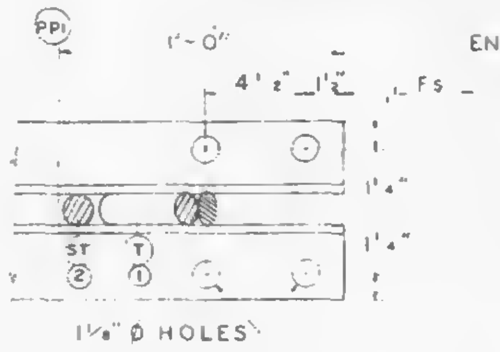
TRUSS ELEVATION



Es END (COLUMN)



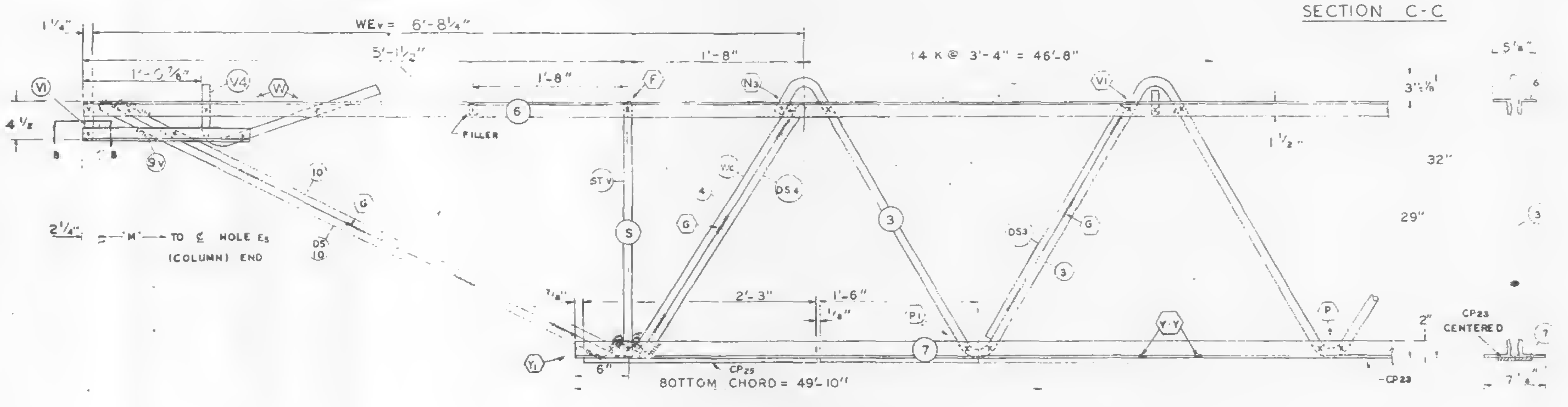
SECTION A-A



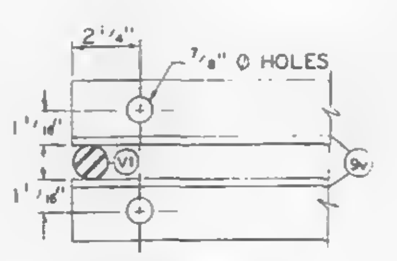
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST285.
SEE SHEET ST295 FOR V1, V2, V3. DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS i.e. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM i.e. R1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| FABRICATION REQUIRMENTS | DESIGN. | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|

SKILLING - HELLE CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED
☒ APPROVED AS NOTED
RESUBMIT
REJECTED
6/4/69 By SK

REF DRWG

| | |
|---|---|
| 7-AB1-27 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | REINFORCING ANGLE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF X | NO. | DIA. | | NO | DIA. | LENGTN | MK | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTN |
| C32T30C595 | 6 | A242 | 2"x1 1/2"x .37 | 59'-6" | 7 | A36 | 3"x 2"x .37 | 49'-10" | 3 | A242 | 1.14 | 88'-1 1/4" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 59'-2 3/4" | 4 | 1.14 | 0'-3" | CP 23 | A36 | 4 1/2"x .39 | 45'-6" | — | — | — | — | CP 25 | A36 | 4 1/2" x .39" | 2'-3" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTN | MK | TYPE STEEL | DIA | LGTH. |
| | C 130C598 | 9 | A242 | 2"x1 1/2"x .37 | 2'-3" | 6'-1 1/4" | 1 | A242 | 1.14 | 6'-3 1/8" | 2 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | A242 | 1.14 | 2'-9 1/2" | DS 1 | A242 | .92 | 6'-3 1/8" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 2 1/2" |

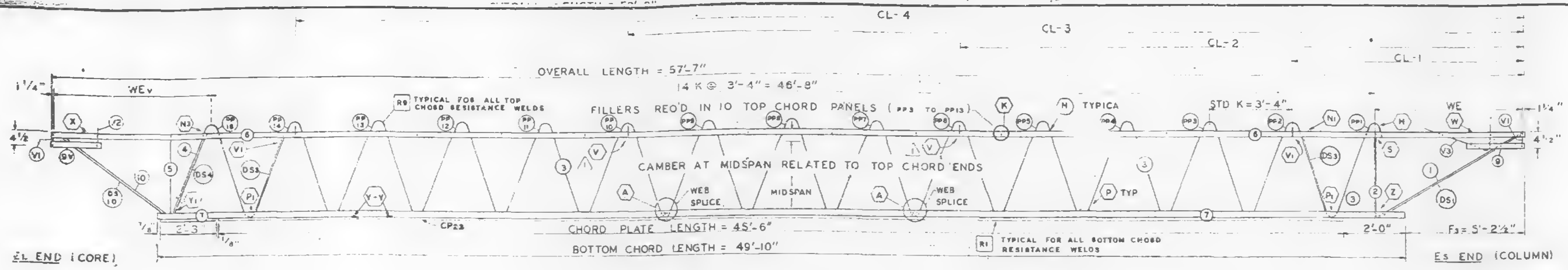
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYP STEEL | | LENGTH |
| | C32T30C598 | 9 | A242 | 2"x1 1/2"x .37 | 1'-6" | 6'-8 1/4" | 10 | A242 | 1.14 | 5'-4 1/4" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | | | | A242 | 1.14 | 2'-2 1/2" | 4 | A242 | 1 | 1.14 | 2'-9" | 4 | A242 | .75 | 2'-9 1/2" | DS 10 | A242 | .92 | 5'-4 1/4" | DS 3 | A242 | .75 | 2'-6 3/4" |

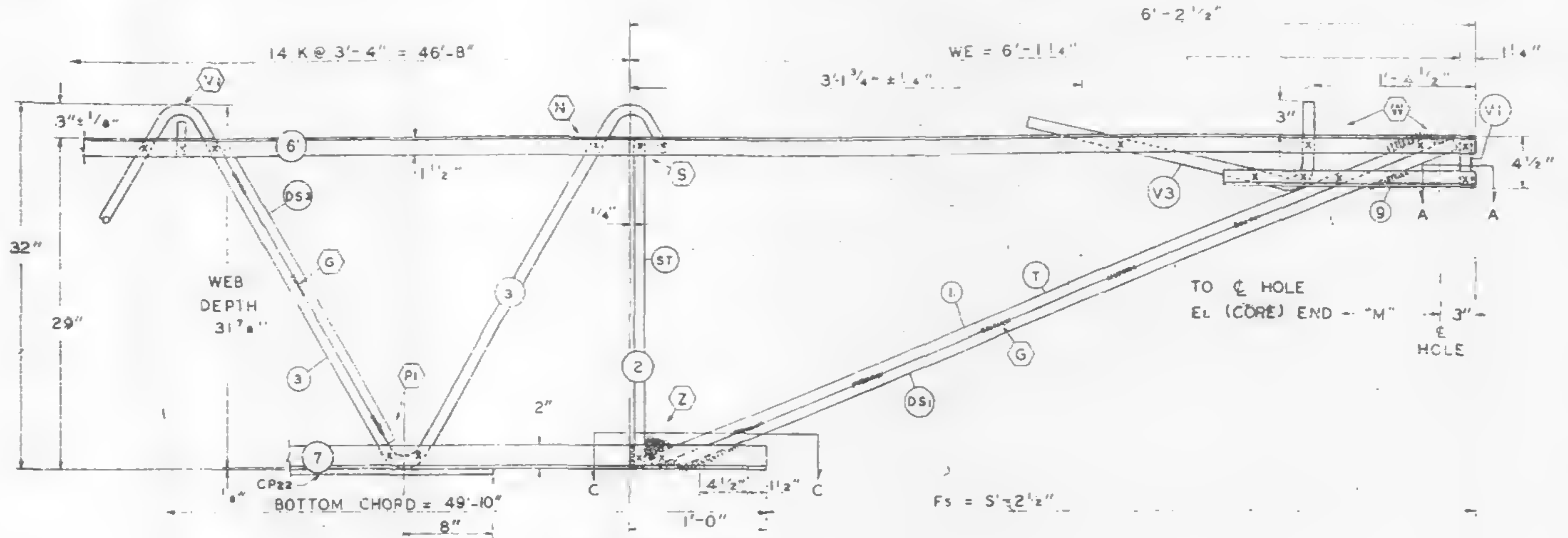
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T30C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB-27
PLATE
APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. DATE ______
DRAWN BY: L.S.
DATE: APRIL 29, 1969
APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR DATE.
CHECKED BY: T.W. [illegible]
DATE: APRIL 29, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST230C

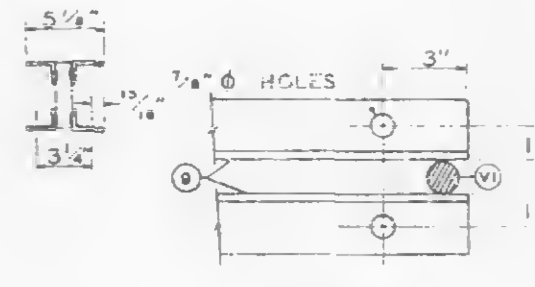


TRUSS ELEVATION

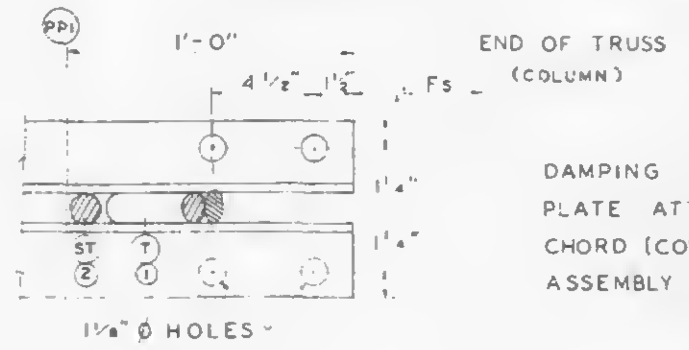


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CNORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTN IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R1

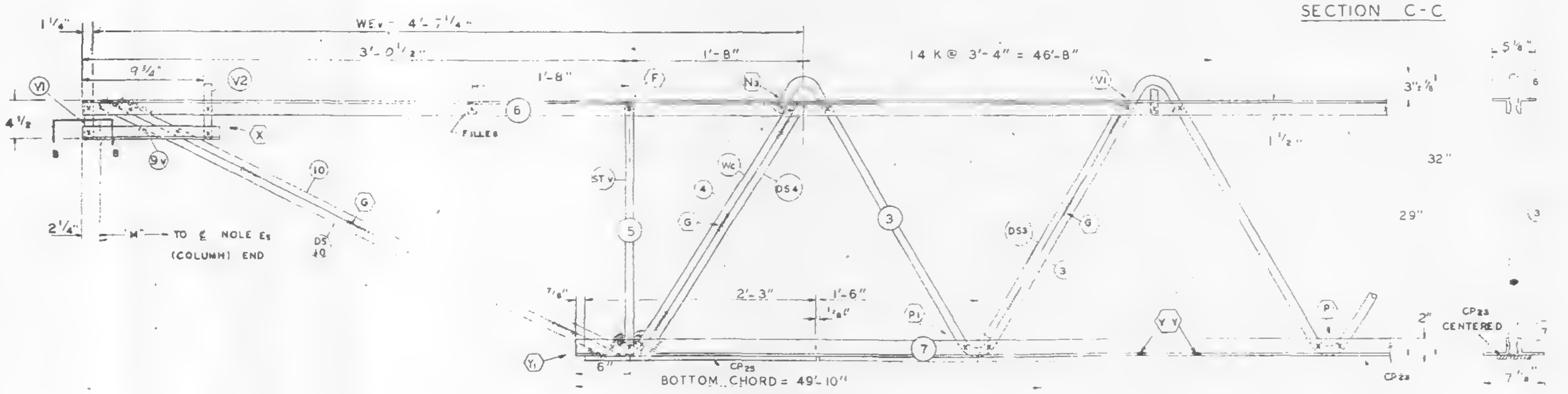


SECTION A-A

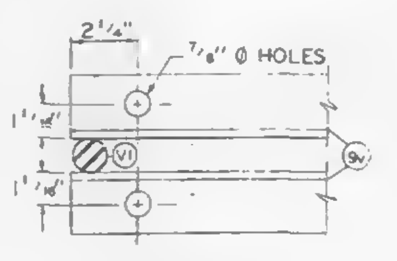


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

## FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 6-12-69 | AS NOTED | G.D.C. |

REF DRWG

| | |
|---|---|
| 7-AB1-27 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | REINFORCING ANGLE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA. | ⚠1 | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T30P-577 | 6 | A242 | 2"x1½"x .37 | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-1¾" | 4 | 1.14 | 0'-3" | CP23 | A36 | 4½"x .39 | 45'-6" | — | — | — | — | CP25 | A36 | 4½" x .39" | 2' 3" |

COL IN END

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTN | MK | TYPE STEEL | DIA | LENGTN | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| C32T30P-577 | 9 | A242 | 2"x1½"x .37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

## CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

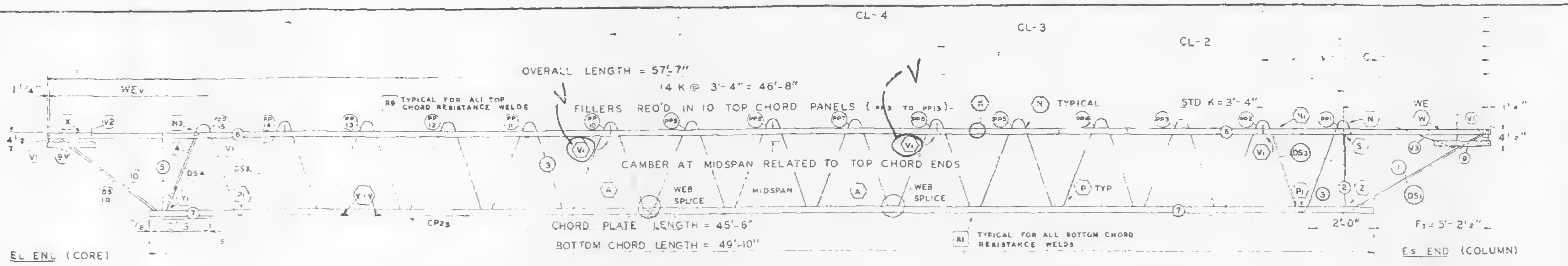
| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE STRUT (REQD) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T30P-577 | 9 | A242 | 2"x1½"x .37 | 11¾" | 4'-7¼" | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2 | DS4 | A242 | .75 | 2'-9¼" | DS10 | A242 | .92 | 3'-7" | DS3 | A242 | .75 | [illegible]-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N. Y. C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T30P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

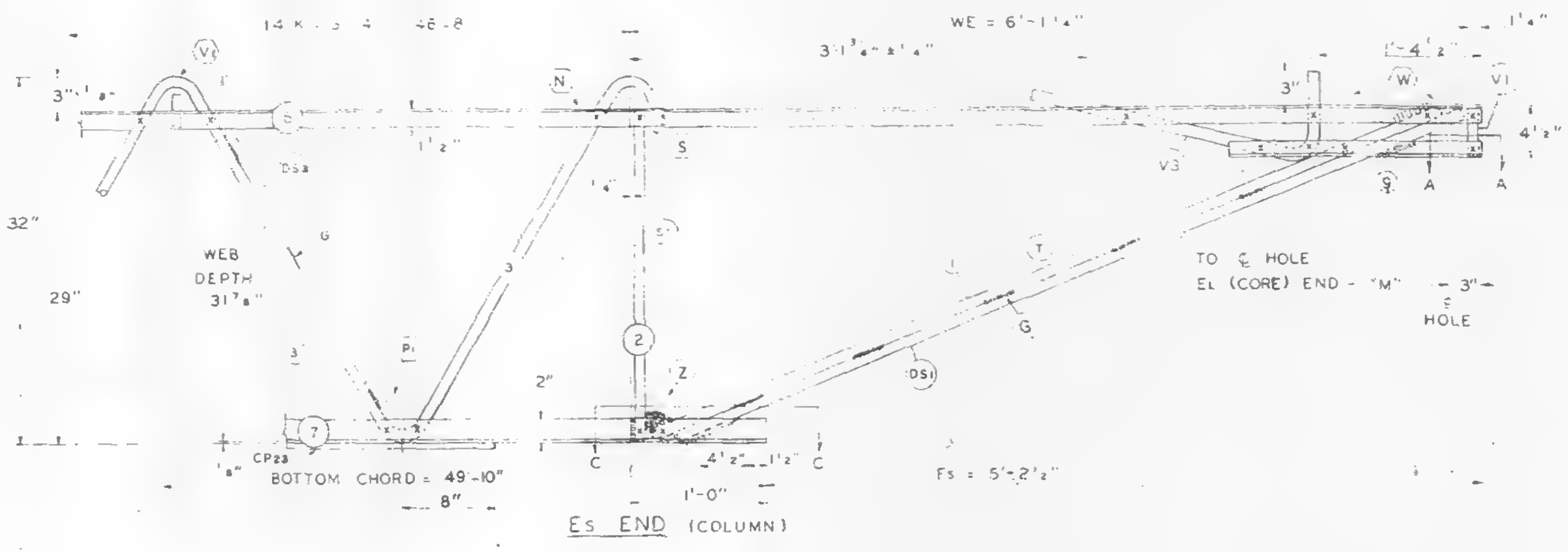
FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-27 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE 7/28/69 | DRAWN BY: [illegible]<br>DATE: APRIL 25, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: [illegible]<br>DATE: APRIL 25, 1969 | IN CHARGE OF [illegible] |
| [illegible]<br>DETAILED BY: A. C. WEBER | | FABRICATION CONT. NO. W.T.C. 281 | SHEET NO. [illegible]30P |

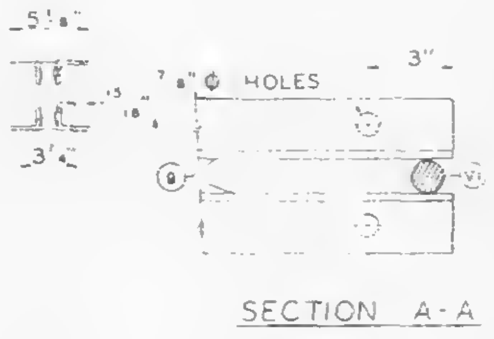

CL-4
CL-3
CL-2
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD K = 3'-4"
WEv
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-0"
Fs = 5'-2½"
4½"
1¼"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

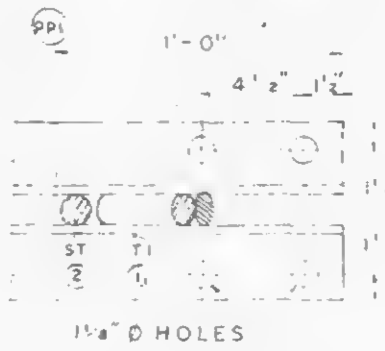
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57' 7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



## Es END (COLUMN)



## SECTION A-A

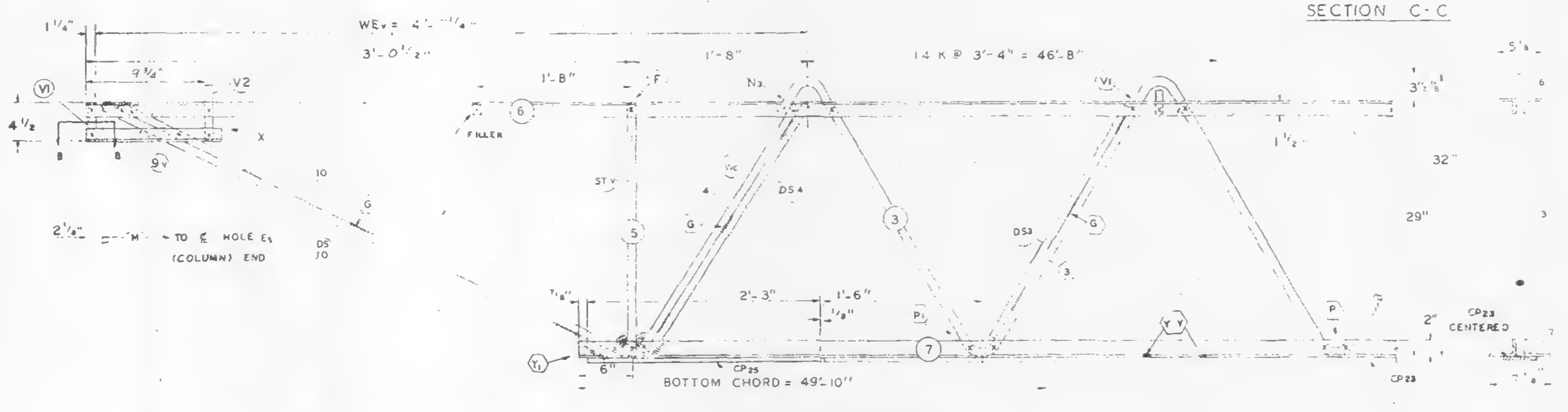


## SECTION C-C

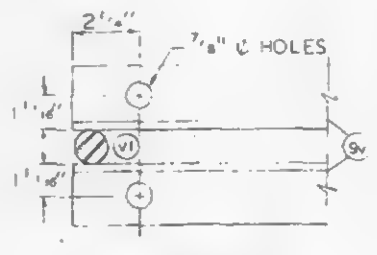
END OF TRUSS (COLUMN)

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST29D - ST254 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM



## EL END (CORE)



## SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|

REF DRWGS

| | |
|---|---|
| 7-AB1-27 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

SKILLING HELLE CHRISTIANSEN ROBERTSON
Structural & Civil Engineers
☒ REVIEWED AS NOTED
6 4 69 SK

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | REINFORCING ANGLE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | ANGLE SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T30P-577 | 6 | A242 | 2"x1½"x.37 | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼ | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-¾" | 4 | 1.14 | 0'-3" | CP23 | A36 | 4½"x.39 | 45'-6" | — | | — | — | CP25 | A36 | 4½" x .39" | 2'-3" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T30P-577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE STRUT (REQ'D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | | LENGTH |
| | C32T30P-577 | 9 | A242 | 2"x1½"x.37 | 11¾" | 4'-7¼" | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜ | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | | A242 | .75 | 2'-9½" | DS10 | A242 | .92 | 3'-7" | DS3 | A242 | .75 | | 2'-6¾" |

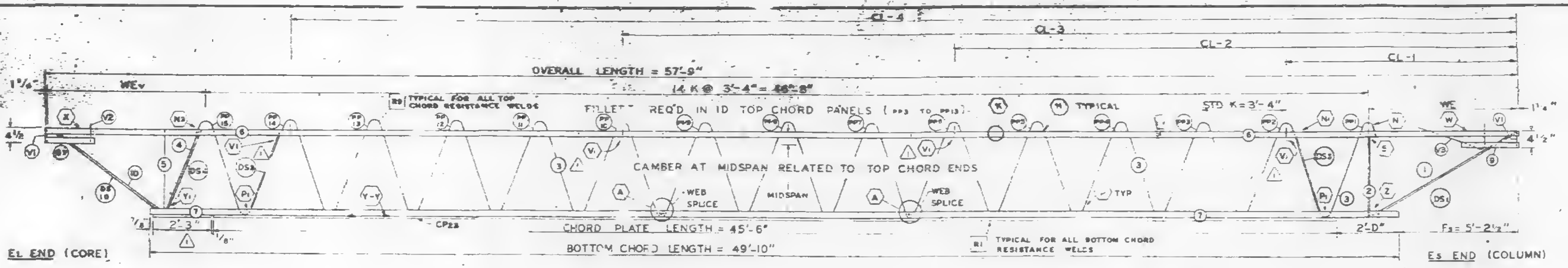
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T30P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

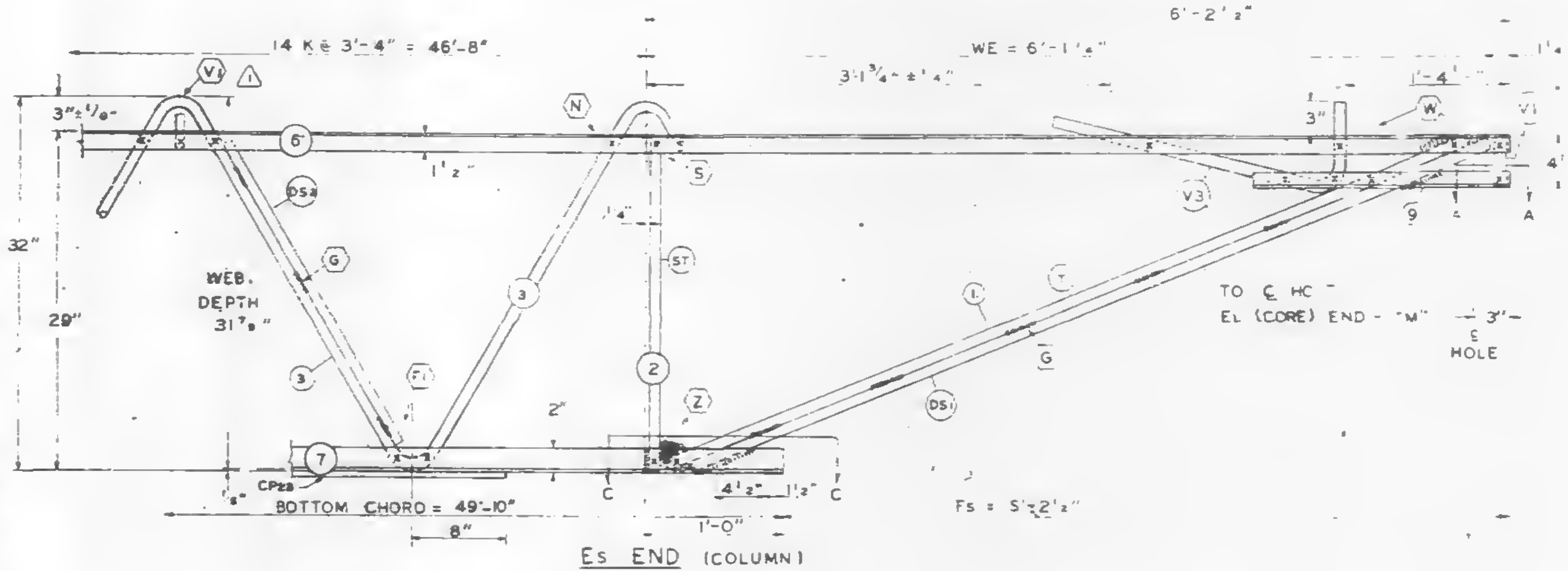
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-27 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. | DATE | DRAWN BY: LWB<br>DATE: APRIL 25, 1969 | |
| APPROVED FOR FABRICATION BY: LACLEDE STEEL CO. | DATE. | CHECKED BY: T.M. CHURA<br>DATE: APRIL 25, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST230P |

| FABRICATION REQUIREMENTS | [illegible] | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | 2" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-9" | ± [illegible] |
| WEB DEPTH | 31 7/8" | 1/4" |

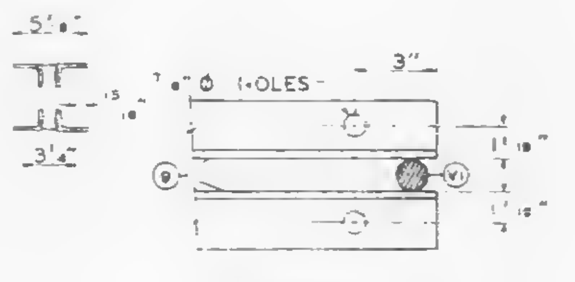

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLET REQ'D IN 1D TOP CHORD PANELS (PP3 TO PP13)
TYPICAL
STD K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYP
CP23
2'-3"
CHORD PLATE LENGTH = 45'-6"
2'-0"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
BOTTOM CHORD LENGTH = 49'-10"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

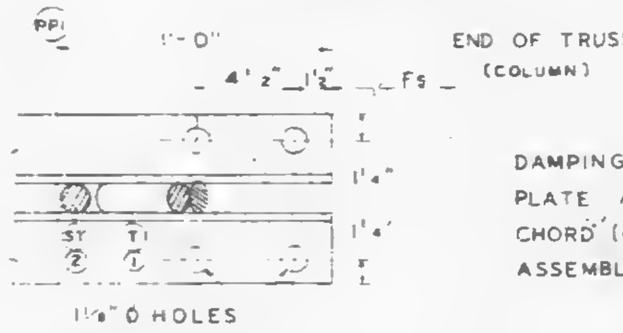


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie., R1

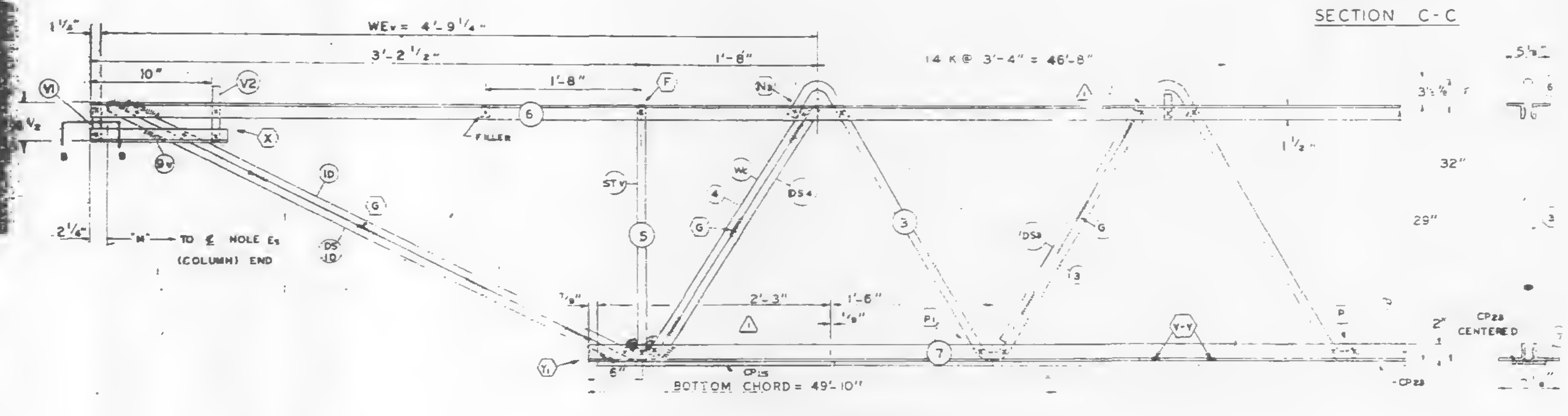


SECTION A-A

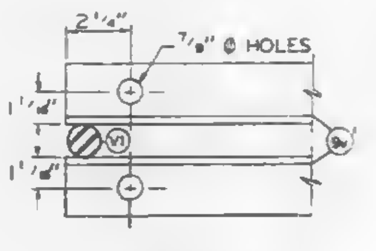


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.



EL END (CORE)



SECTION B-B

| NO | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 2-18-69 | AS NOTED | L.R.M. |

REF DRWG.

| | |
|---|---|
| 7-A81-27 | 1-6-69 |
| 7-A84-50 | 8-1-68 |
| 7-A83-41 | 1-6-69 |
| 7-A81-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS 1 | | | CHORD PLATE | | | | REINFORCING ANGLE | | | | CHORD PLATE 1 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO OF R | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | ANGLE SIZE | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T30N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼ | 14 @ 3'-4"= 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 0'-3" | CP 25 | A36 | 4½"x.39 | 45'-6" | — | — | — | — | CP 25 | A36 | 4½" x .39" | 2'-3" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES 1 | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T30N-579 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.[illegible] | [illegible] 2" | DS 1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**CORE END**

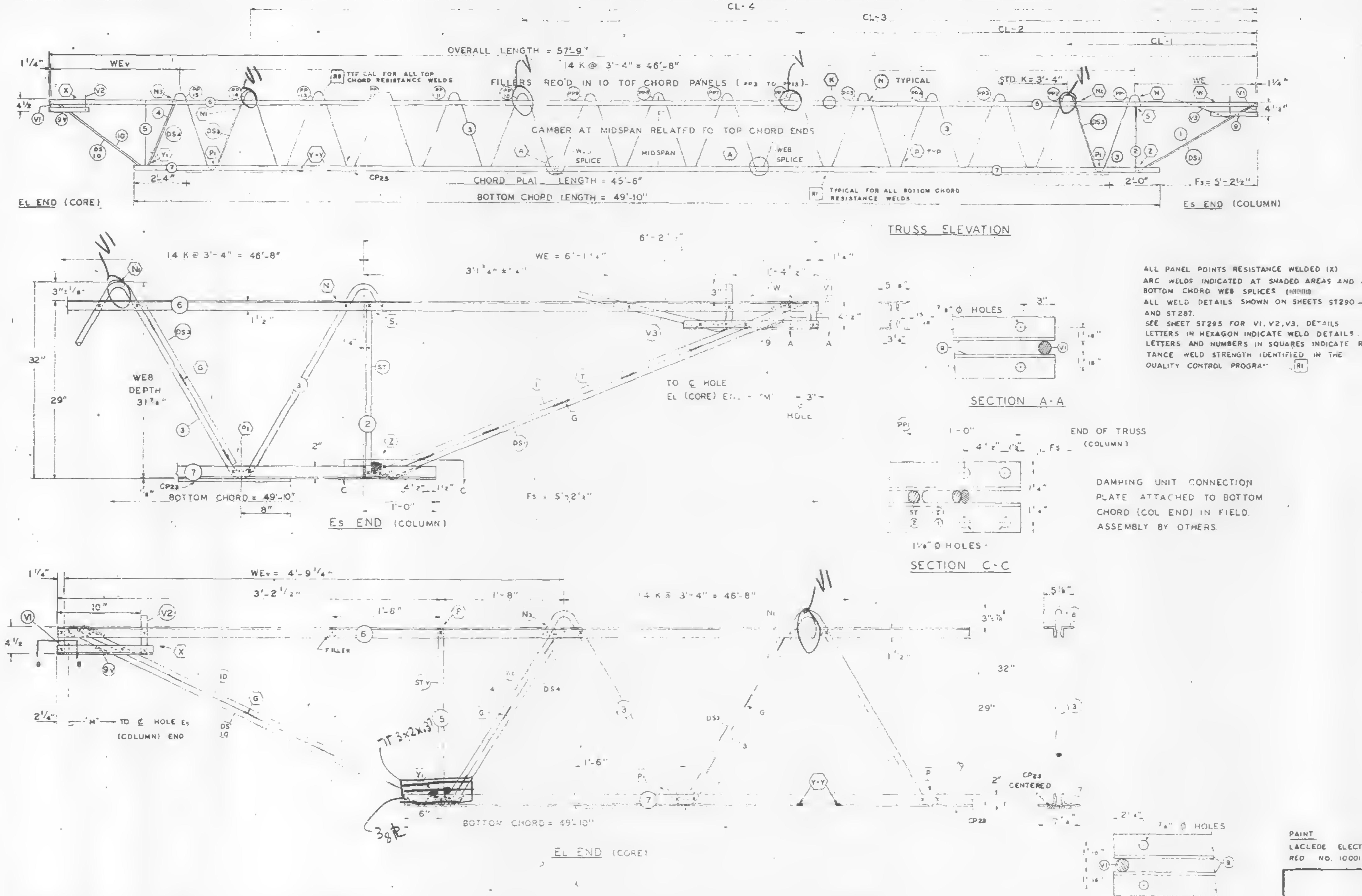
| EL END | TRUSS DESIGNATION | BEARING ANGLES 1 | | | | WEv | DIAGONAL "Tv" STRUT 1 | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT 1 | | | | (2) (REQ'D) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T30N-579 | 9 | A242 | 2"x1½"x.37 | 1'-0" | 4'-9¼ | 10 | A242 | 1.14 | 3'-8¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS 4 | A242 | .75 | 2'-9½" | DS 10 | A242 | .92 | 3'-8¼" | DS 3 | A242 | .75 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T30N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A&B

FABRICATION BY: LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-27 | PLATE |
| APPROVED FOR FABRICATION BY James White FOR P.O.N.Y.A. | DATE 2/[illegible]/69 | DRAWN BY: [illegible]<br>DATE: [illegible] | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: [illegible]<br>DATE: JAN. 21, [illegible] | IN CHARGE OF [illegible] |
| DETAILED BY: [illegible] | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. [illegible] |



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST287.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS. ie. ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM [R1]

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 7/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

REF DRWG

| | |
|---|---|
| 7-AB1-27 | 1-8-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T30N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | — 4 | — 1.14 | — 4 | CP 23 | A36 | 4½"x.39 | 45'-6" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T30N-579 | 9 | A242 | 2"x1½"x.25 .37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | [illegible] | [illegible]½" | DS 1 | A242 | .92 | 5'-3⅛" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | ND STIFFENER MK. V1 | | | ND STIFFENER MK. V2 | | | ND STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) (REQD) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T30N-579 | 9 | A242 | 2"x1½"x.25 .37 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7¾" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS 4 | A242 | .75 | 2'-9½" | DS 10 | A242 | 92 | 3'-7⅜" | DS 3 | A242 | .75 | 2'-6¾" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

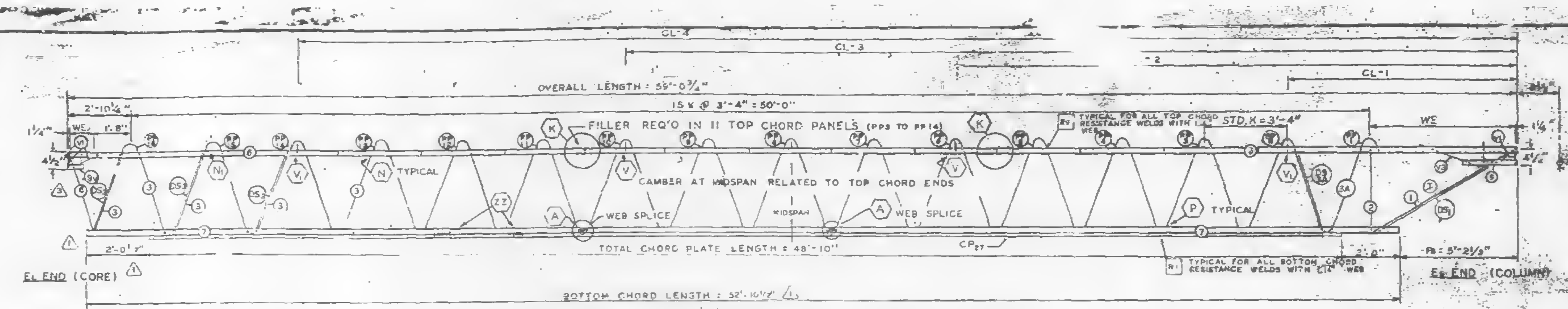
X
2/19/69 SK

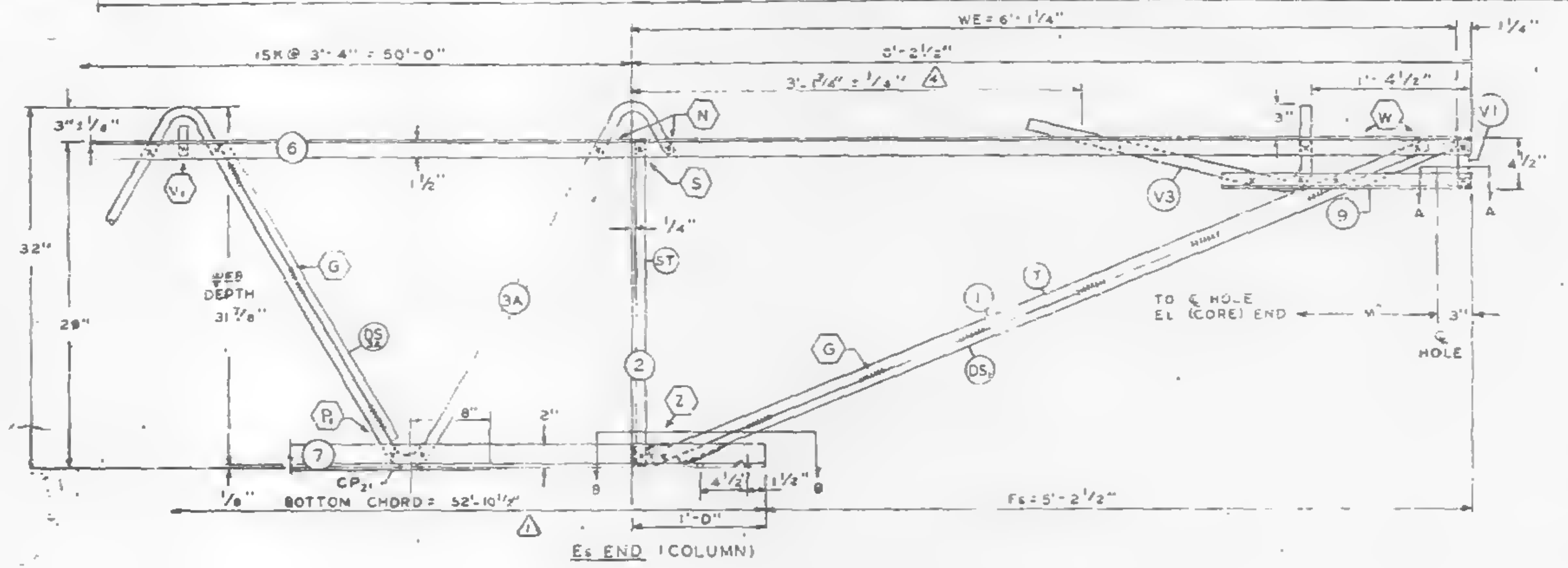
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

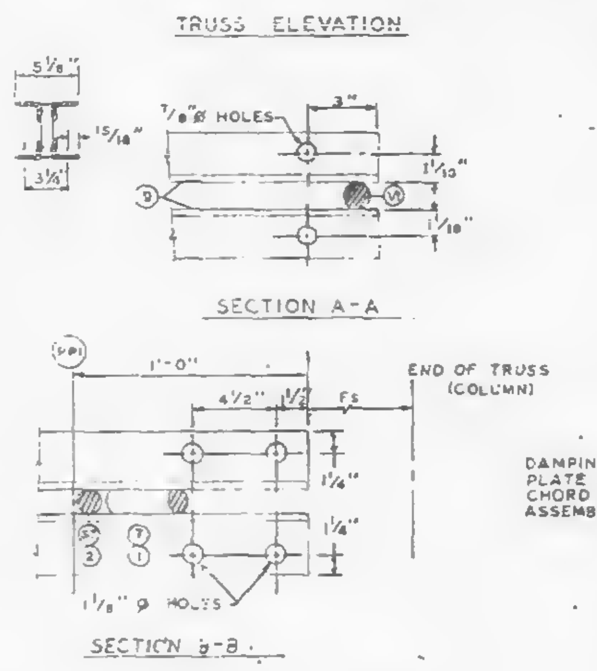
FLOOR TRUSS C32T30N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY. LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-27 | PLATE |
| APPROVED FOR FABRICATION BY: ____ FOR PONYA | DATE | DRAWN BY: R.R. DATE: JAN. 20 1969 | |
| APPROVED FOR FABRICATION BY. A.C. WEBER FOR FABRICATOR | DATE. | CHECKED BY: T.M.CHURA DATE: JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY. A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST230N |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
WE
1'-8"
FILLER REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP14)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH
STD. K = 3'-4"
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYPICAL
TOTAL CHORD PLATE LENGTH = 48'-10"
CP27
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH E ¼" WEB
Fs = 5'-2½"
2'-0½"
℄ END (CORE)
℄ END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"

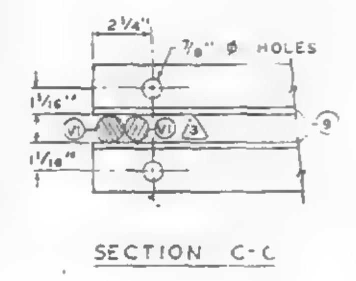




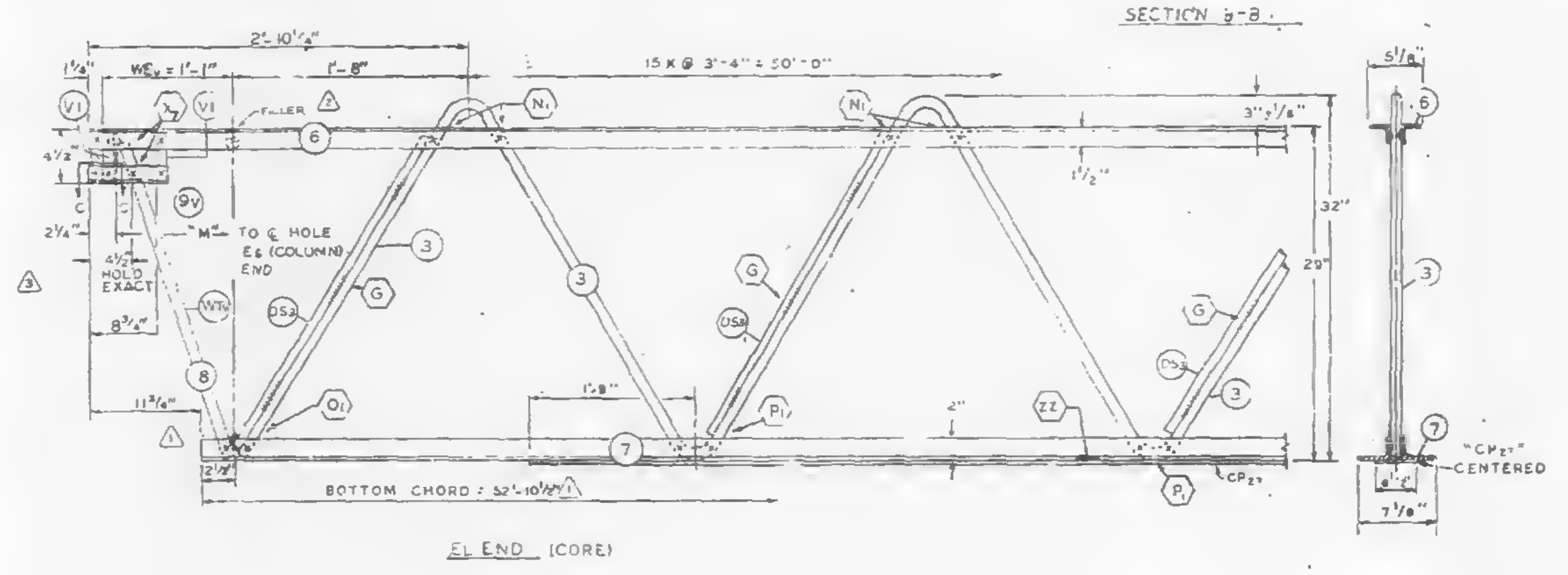
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

ALL PANEL POINTS RESISTANCE
ARC WELDS INDICATED AT SHAL
AND AT BOTTOM CHORD WEB
ALL WELD DETAILS SHOWN ON S
ST291, ST292, ST293, ST294 &

CHORD PLATE DETAILS SHOWN ON
SEE SHEET ST295 FOR V1 & V3 DET
LETTERS IN HEXAGON INDICATE
LETTERS AND NUMBERS IN SQUAR
SISTANCE WELD STRENGTH IDE
QUALITY CONTROL PROGRAM



SECTION C-C



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 4 | 3-11-69 | AS NOTED | G.D.C. |
| 3 | 3-3-69 | AS NOTED | G.D.C. |
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-A81-28 | 1-4-68 |
| 7-A81-52 | 2-15-68 |
| 7-A84-14 | 1-3-68 |
| 7-A81-54 | 11-25-68 |
| 7-A81-53 | 7-22-68 |
| 7-A83-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | CONNECTION FILLER | | | CHORD PLATE | | | | "M" ⅞ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO. | DIA | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T_-59075 | 6 | A242 | 2"x1½"x.37 | 59'-0¾ | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3 | A242 | 1.14 | 56'-0¾" | 9K @ 3'-4" = 30'-0" | 12 | 1.14 | 4 | 1.14 | _'-3" | CP27 | A36 | 4½x.39 | 48'-10" | 58'-7 |
| | | | | | | | | | 3A | A242 | 1.14 | 40'-11½" | 6½K @ 3'-4" = 21'-8" | | | | | | | | | | |

COLUMN END

| ℄ END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "S" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T31-59075 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" | DS3A | A242 | .75 | 2'-6¼" |

CORE END

| ℄ END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T31-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS2 | A242 | .98 | 2'-8¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-6¼" |

CHECK DIMENSION FOR TRUSS FAB.

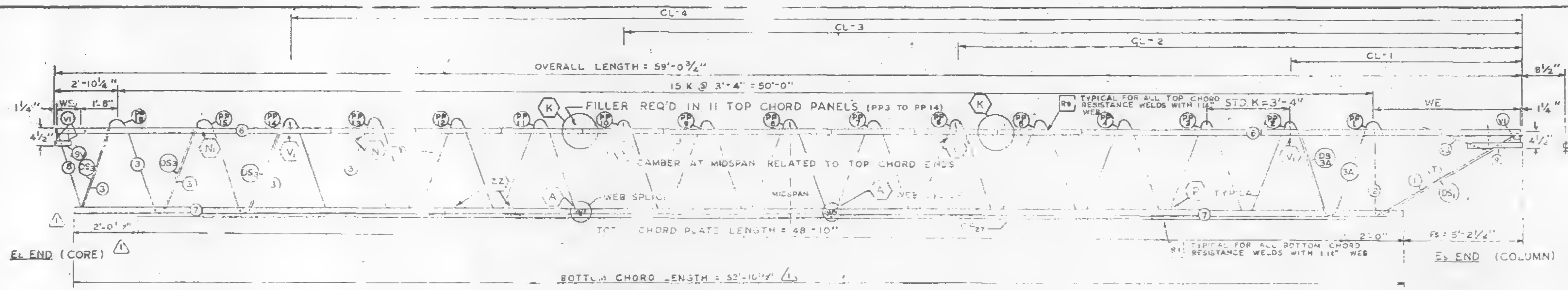
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | _10½" | 36'-2½" | 49'-6½" | 5'-2½" |

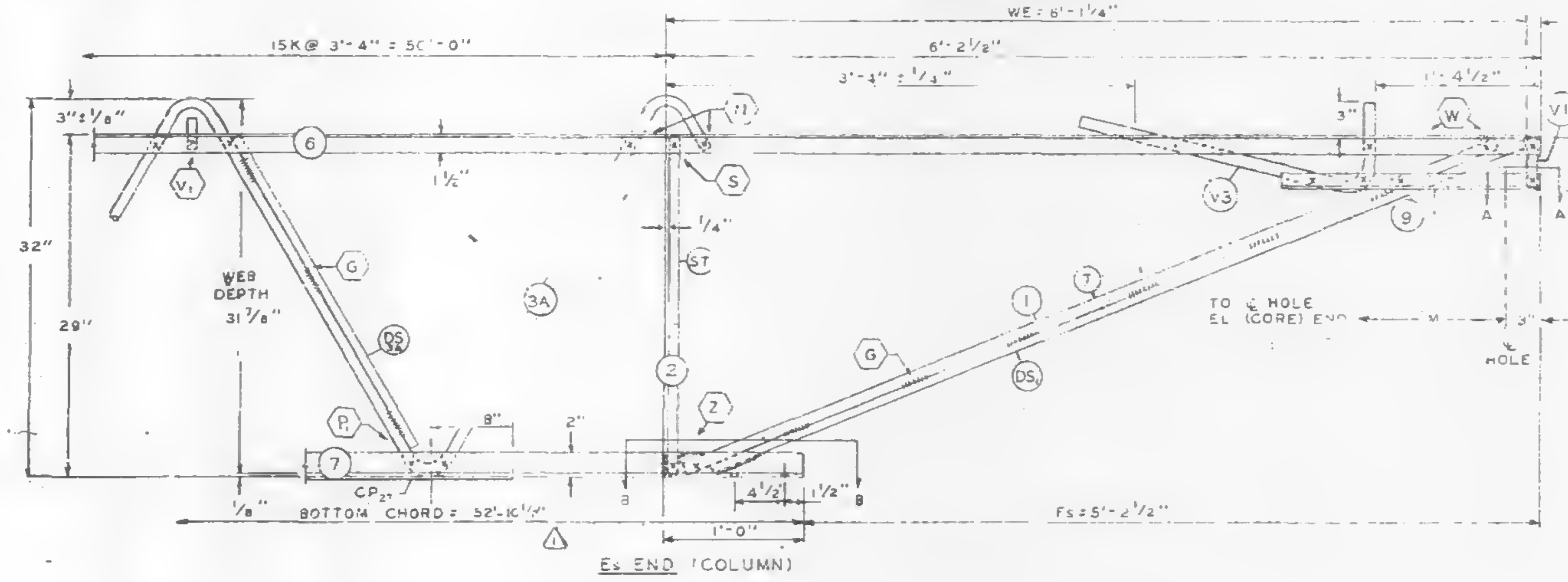
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

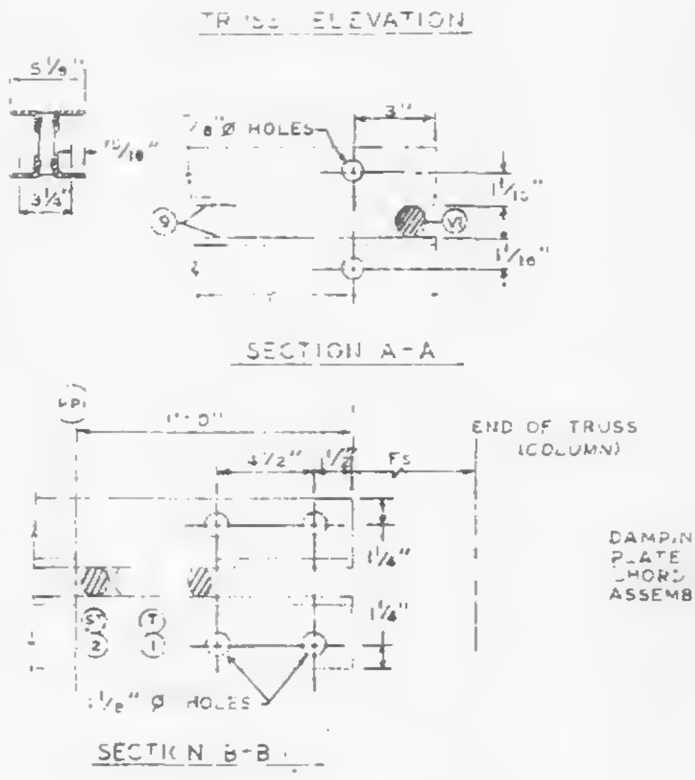
FLOOR TRUSS C32T31- 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B.

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-28 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A | DATE 3/24/69 | DRAWN BY: Lee DATE JAN 21, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO DETAILED BY A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 231 |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
WE₁ 1'-8"
FILLER REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP14)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1¼" WEB
STD K=3'-4"
WE
8½"
1¼"
4½"
℄ COL.
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
TYPICAL
2'-0"
TOP CHORD PLATE LENGTH = 48'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1¼" WEB
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"



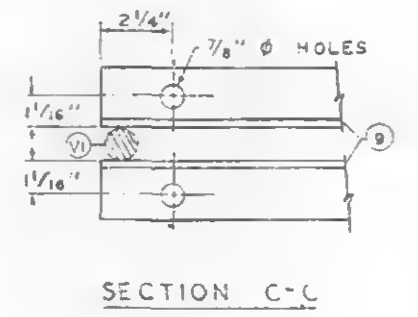


ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▬▬)
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, AND ST287.

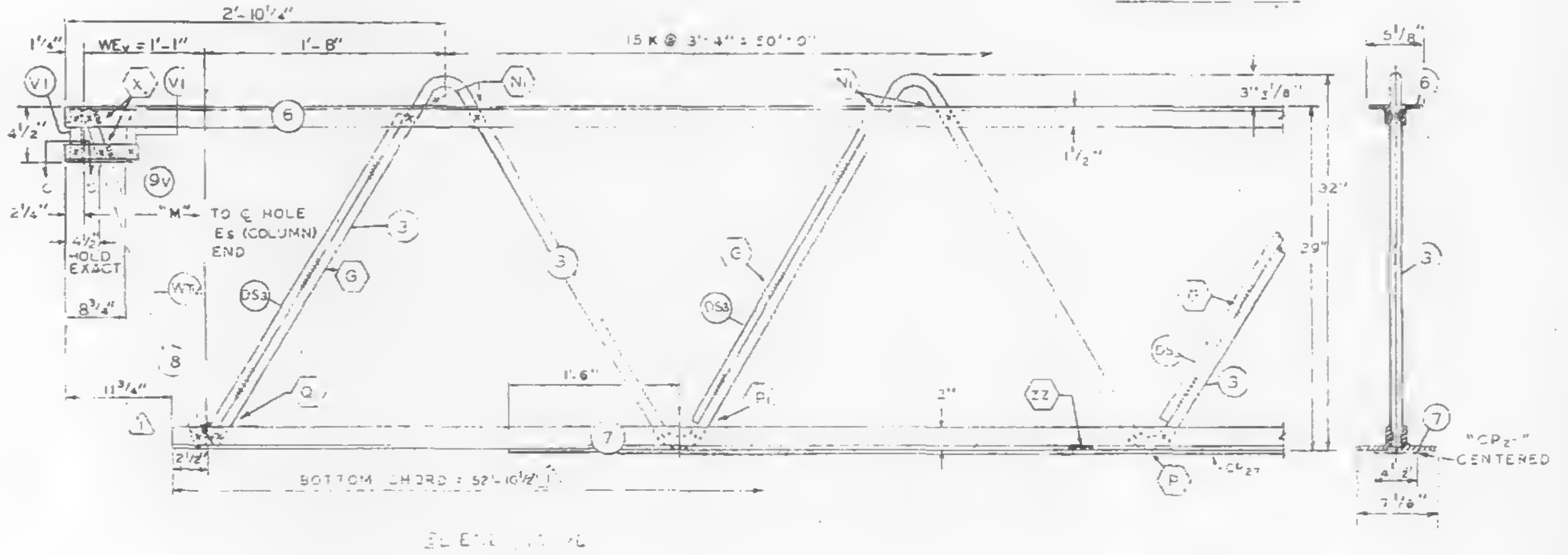
CHORD PLATE DETAILS SHOWN ON SHEET ST287.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-1

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± .8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K" | 3 | ± 1/4" |
| OVERALL LENGTH | [illegible]4" | ± 3/ |
| WEB DEPTH | 31 7/8" | ± 1 |



SECTION C-C



ELEVATION

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-28 | 1-6-68 |
| 7-AB1-52 | [illegible]-15-68 |
| 7-AB4-14 | [illegible]-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | [illegible]-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT

LACLEDE ELECTROCOAT
REQ NO. 10001

2/19/69 SK

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T31 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

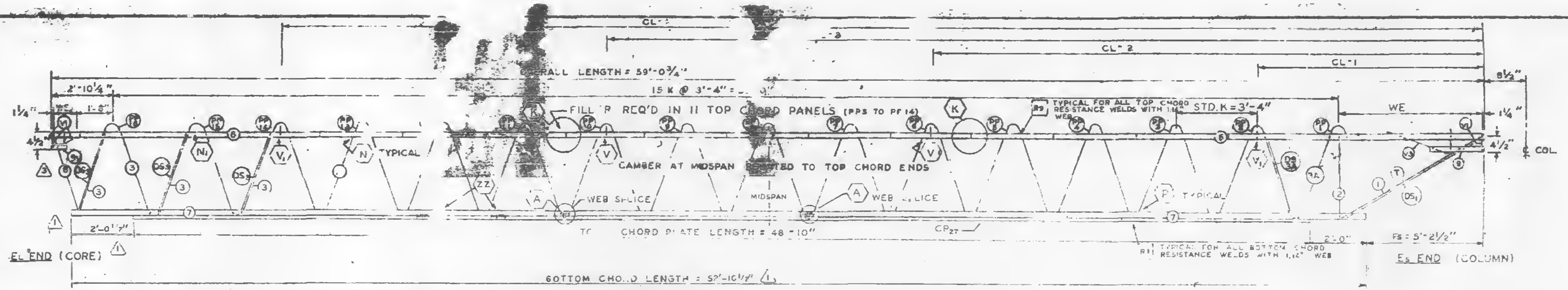
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-28 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY dee<br>DATE JAN. 21, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 231 |

| TRUSS DESIGNATION | TOP CHORD ANGLES | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible]T31-59075 | 6 | A36 | 2"x1½"x.3[illegible] | [illegible] | A36 | 2"x[illegible] | 52'-10½" | 3<br>3A | A242<br>A242 | .14<br>.14 | [illegible]<br>40'-11[illegible] | 15K@3'-4"=50'-0"<br>6½K@3'-4"=21'-8" | [illegible] | .14 | 4 | .14 | 2'-4" | CP27 | A36 | 4"x39 | 48'-10" | 58[illegible] |

| | TRUSS DESIGNATION | ANGLES | | | | WE | | | | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Es END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA | LENGTH |
| | C32T31-59075 | [illegible] | A242 | 2"x1½" (25) .37 | [illegible] | 6'-1¼" | A242 | .14 | 6'-3⅛" | A242 | .14 | [illegible]-4⅞" | A242 | .14 | 2'-4¾" | [illegible] | 2'-9½" | DS1 | A242 | .52 | 6'-3' 8" | DS3A | A242 | .75 | 2'-6¾" |

| | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CORE END | | MK. | TYPE STEEL | HORIZ. LEG | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH 2 REQ'D | MK. | TYPE STEEL | [illegible] | [illegible] | LENGTH | MK. | TYPE STEEL | [illegible] | DIA | LENGTH |
| | C32T31-59075 | 9V | A242 | 2"x1½"x.37 | 0'-10" | 1'-1" | DS3 | A242 | .99 | 2'-6¾" | — | — | — | — | A242 | .14 | 4⅜" | — | — | — | — | — | 8 | A242 | 1 | .14 | 2'-6¼" |

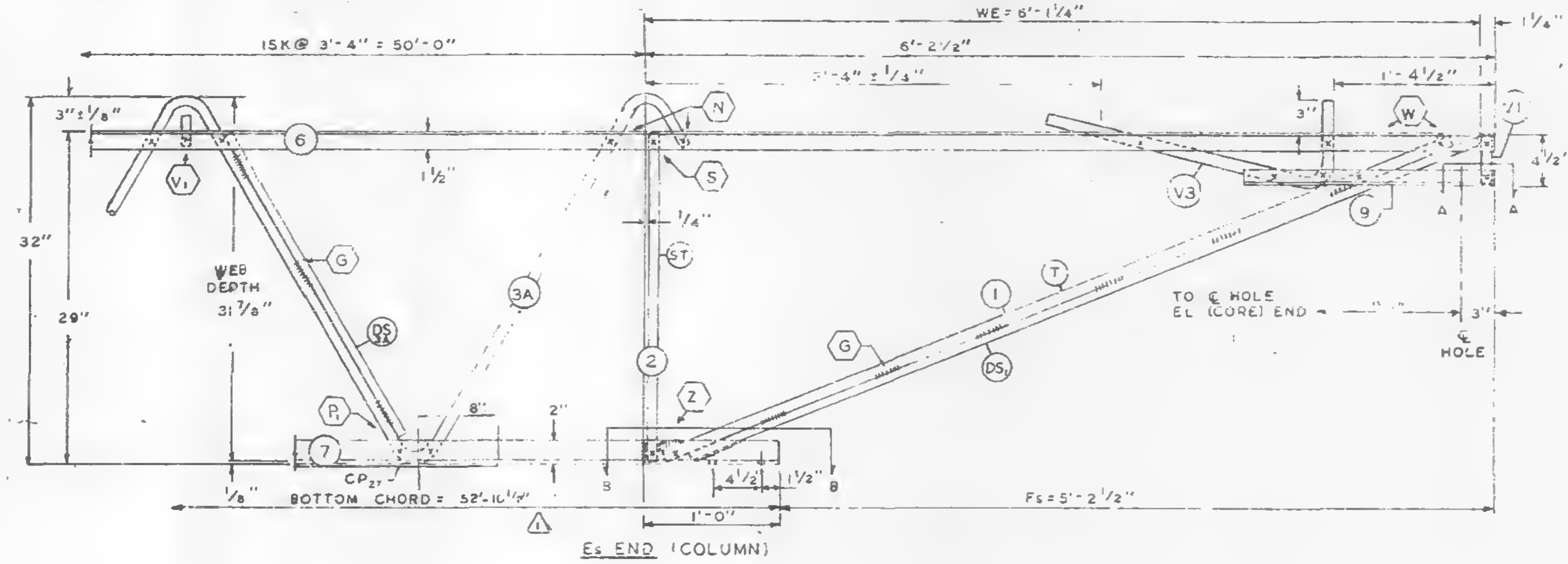

CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
1'-8"
1¼"
4½"
8½"
FILLER REQ'D IN 11 TOP CHORD PANELS (PP5 TO PF14)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB
STD. K = 3'-4"
WE
¢ COL.
TYPICAL
CAMBER AT MIDSPAN BOLTED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYPICAL
TOP CHORD PLATE LENGTH = 48'-10"
CP27
2'-0"
Fs = 5'-2½"
2'-0½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB

EL END (CORE)

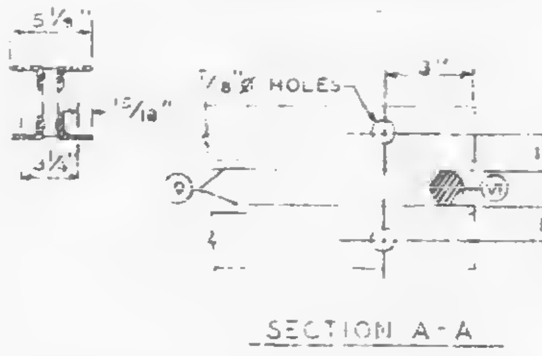
BOTTOM CHORD LENGTH = 52'-10½"

Es END (COLUMN)

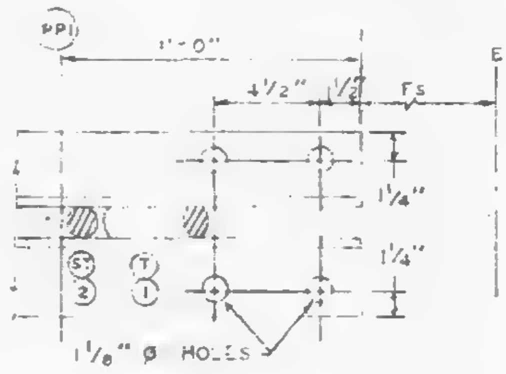
TRUSS ELEVATION



Es END (COLUMN)



SECTION A-A



END OF TRUSS (COLUMN)

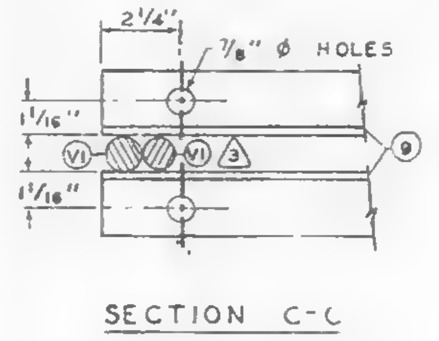
SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (IIIIIIII)
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, ST294 & ST 287. ⚠3

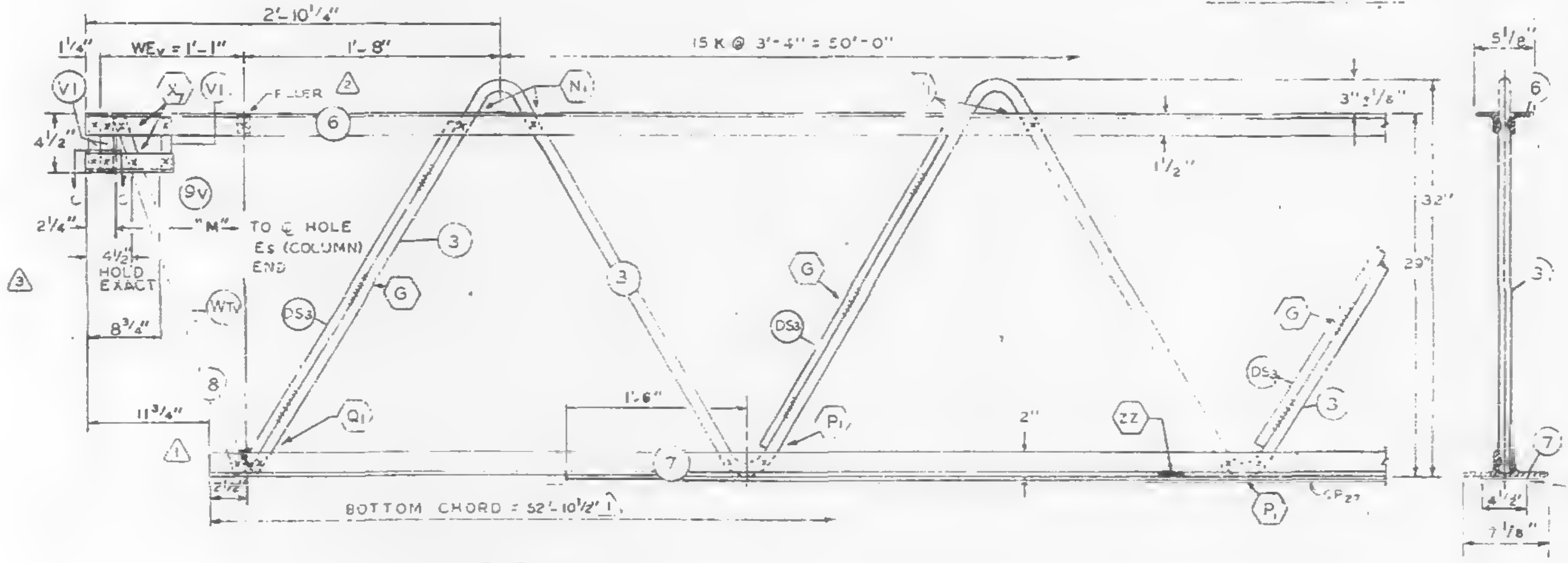
CHORD PLATE DETAILS SHOWN ON SHEET ST287.
SEE SHEET ST296 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, i.e. R-1

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL. END) IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |



SECTION C-C



EL END (CORE)

| No. | Date | Revision | By |
|---|---|---|---|
| 3 | 3-3-69 | AS NOTED | G.D.C. |
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-28 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14" | 1-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "X" | | | | | FILLER | | | CONNECTION FILLER | | CHORD PLATE | | | | "M" ⅞ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH ⚠1 | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | [illegible] | DIA. | [illegible] | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | |
| C32T31-59075 | 6 | A242 | 2"x1½"x.37" | 59'-0¾" | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 56'-0¾"<br>40'-11¼" | 9K@3'-4"=30'-0"<br>6½K@3'-4"=21'-8" | 12 | 1.14 | 4 | 1.14 | 5'-3" | CP27 | 436 | 4½x.39 | 48'-10" | 58'-½" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | We | DIAGONAL "1" STRUT | | | | "ST" STRUT | | | | [illegible] | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | [illegible] | [illegible] | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | | C32T31-59075 | 9 | A242 | 2"x1½"x.37" | 1'-10" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4⅝" | A242 | 4 | 2'-½" | | S1 | A242 | .92 | 6'-3⅛" | DS3A | A242 | .75 | 2'-6¾" |

⚠2

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER ⚠3 MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (3 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (3 REQ'D) | MK. | TYPE STEEL | [illegible] | [illegible] | LENGTH | MK. | TYPE STEEL | [illegible] | DIA. | LENGTH |
| | | C32T31-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS3 | A242 | .98 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 1⅜" | — | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-8¼" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

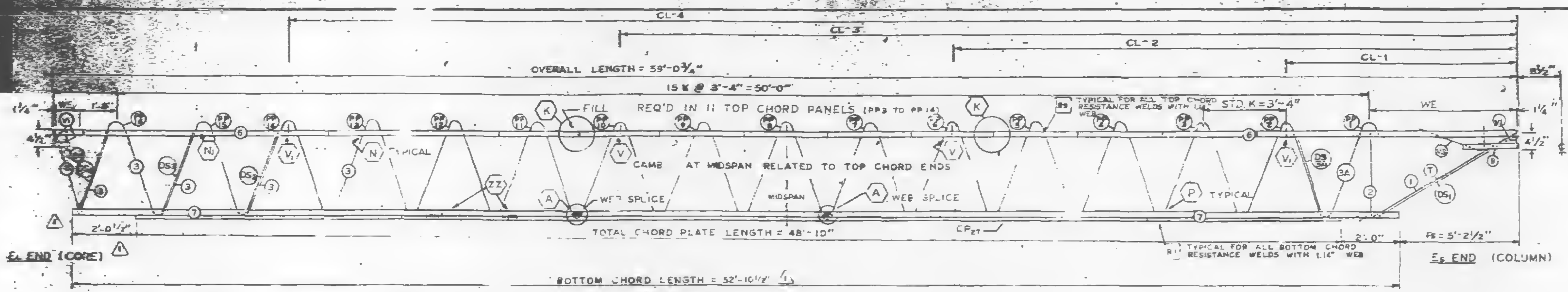
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

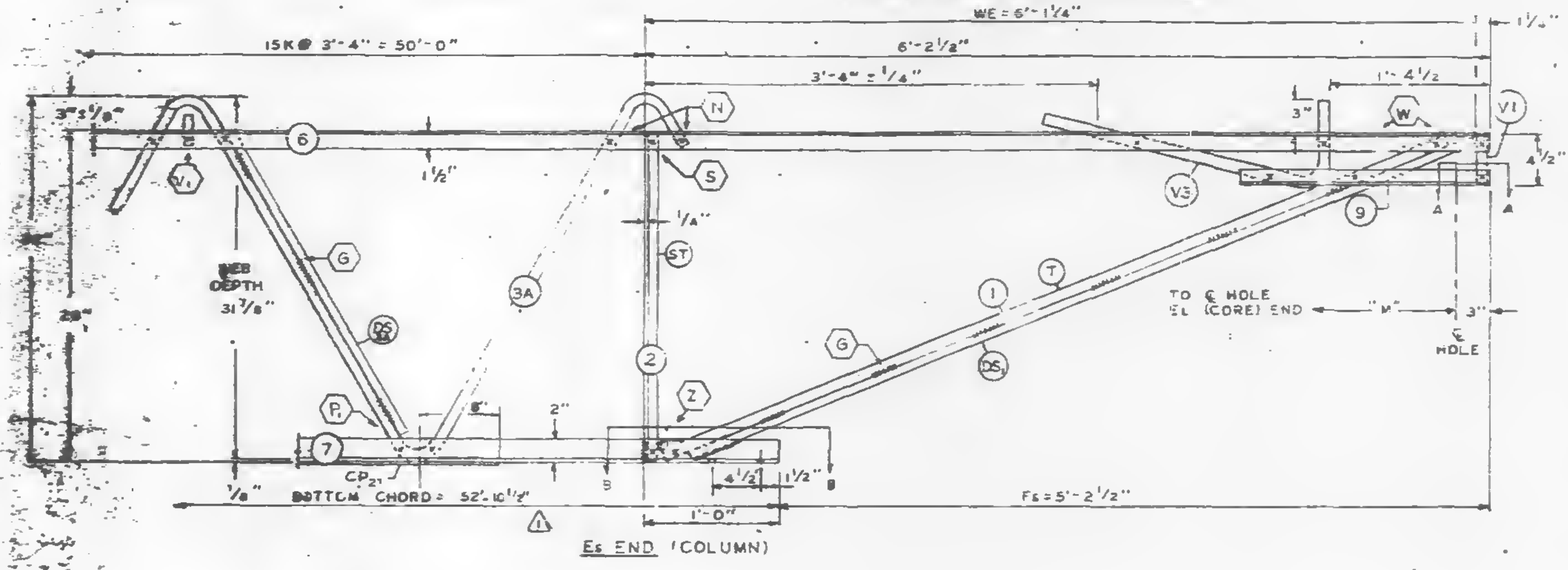
FLOOR TRUSS C32T31 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

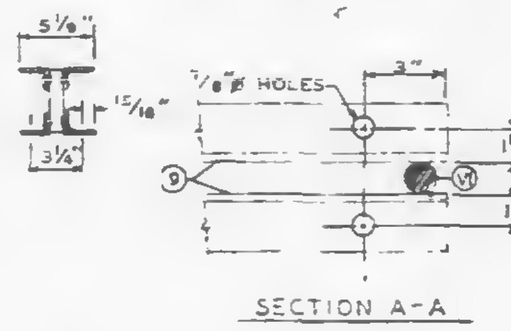
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION FOR P.O.N.Y.A. James White DATE 3/10/69
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
DETAILED BY A. EARL WAHER

DESIGN DRAWING NO. 7-AB1-28
DRAWN BY dee
DATE JAN 21, 1969
CHECKED BY
DATE JAN 21, 1969

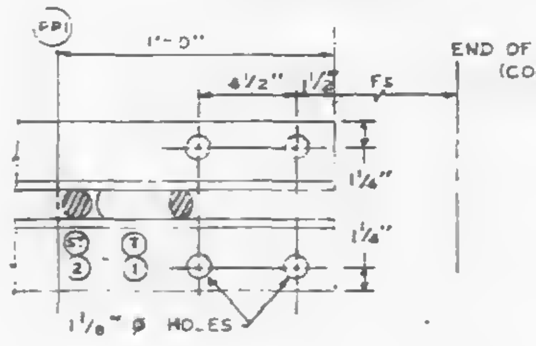

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
FILL REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP14)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB
STD. K = 3'-4"
WE
CAMB AT MIDSPAN RELATED TO TOP CHORD ENDS
TYPICAL
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYPICAL
TOTAL CHORD PLATE LENGTH = 48'-10"
CP27
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB
2'-0½"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)
℄ COL
BOTTOM CHORD LENGTH = 52'-10½"
WE = 6'-1¼"



## TRUSS ELEVATION



SECTION A-A



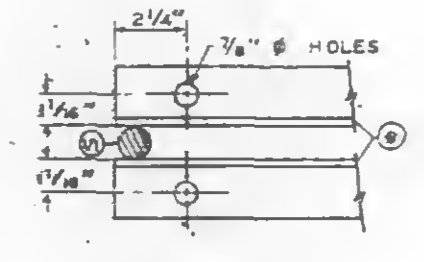
SECTION B-B

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

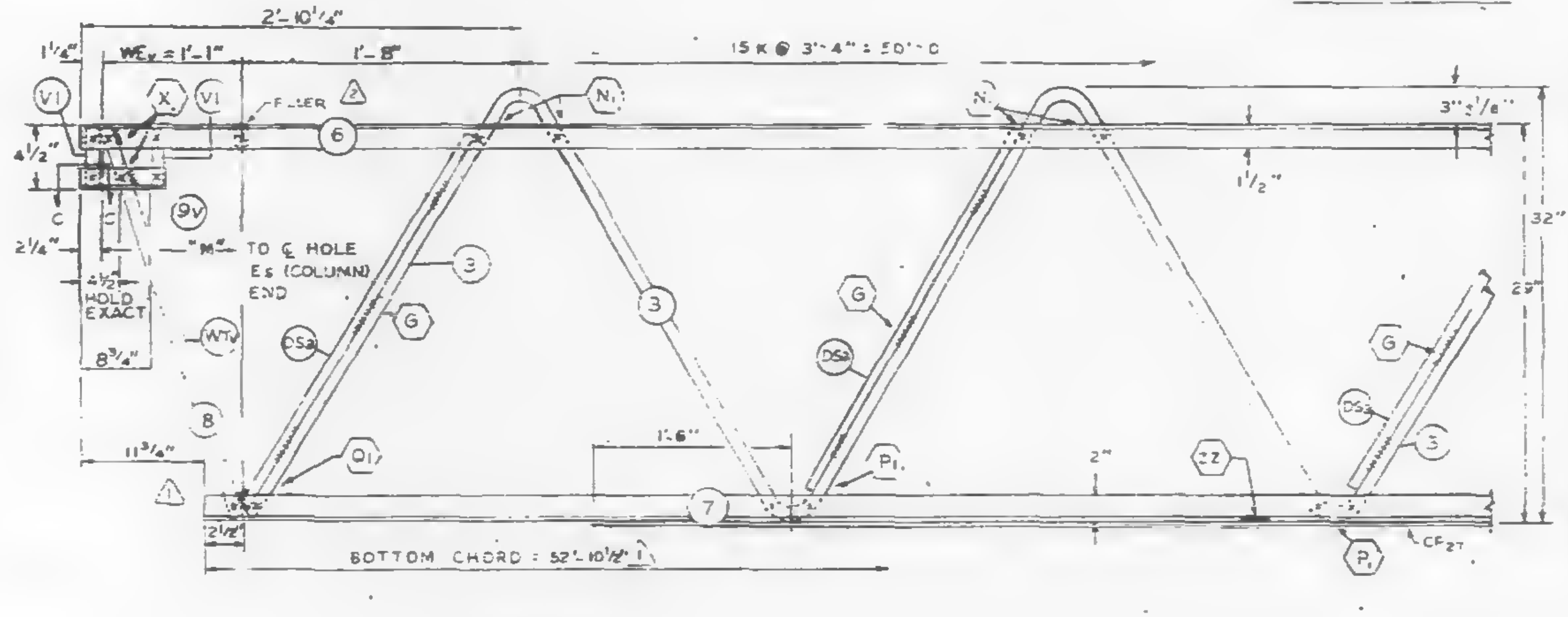
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST28?.

CHORD PLATE DETAILS SHOWN ON SHEET ST287.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-1

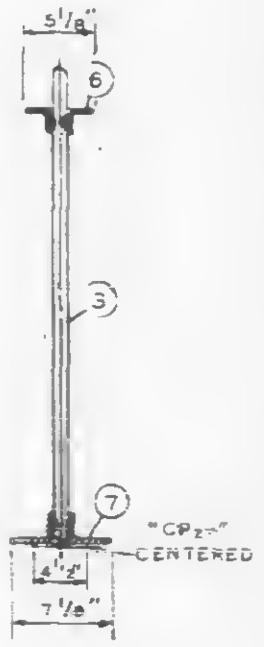
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| CAMBER AT MIDSPAN | | |
| DESIGN DEPTH | | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/[illegible] |
| OVERALL LENGTH | 59'-0¾" | [illegible]/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |



SECTION C-C



EL END (CORE)



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | G.B.C. |

REF. DRWG.

| | |
|---|---|
| 7-ABI-28 | 1-6-68 |
| 7-ABI-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-ABI-54 | 11-25-68 |
| 7-ABI-55 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | CONNECTION FILLER | | | CHORD PLATE | | | | M" ⅞ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T31-59075 | 6 | A242 | 2"x1½"x.37 | 59'-0¾" | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 56'-0¾"<br>40'-11¼" | 9K@3'-4"=30'-0"<br>6½K@3'-4"=21'-8" | 2 | 1.14 | 4 | .14 | 0'-3" | CP27 | A36 | 4"x2.39 | 48'-10" | 58'-[illegible]½ |

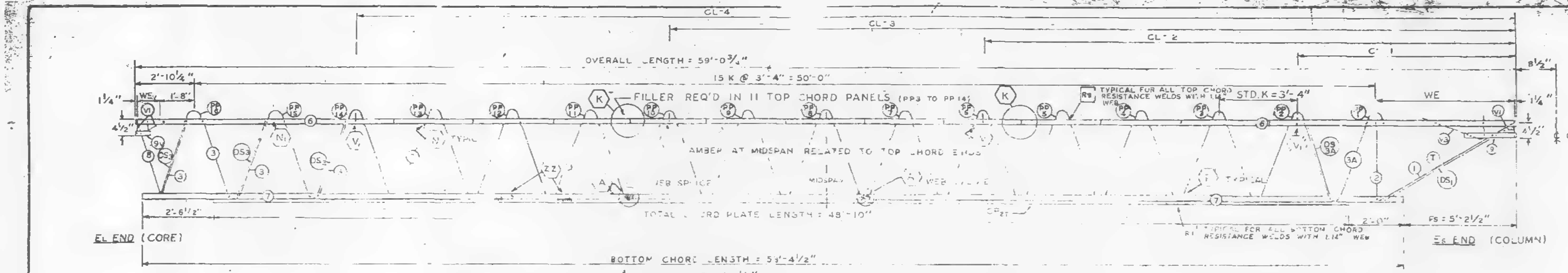
| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | | | | | |
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T31-59075 | 9 | A242 | 2"x1½"x.37 ⚠2 | 1'-10" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4⅜" | A242 | 1.14 | 3½" | DS1 | A242 | .92 | 6'-3⅛" | DS[illegible] | A242 | .75 | 2'-6¾" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | | C32T31-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS2 | A242 | .98 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-6⅞" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

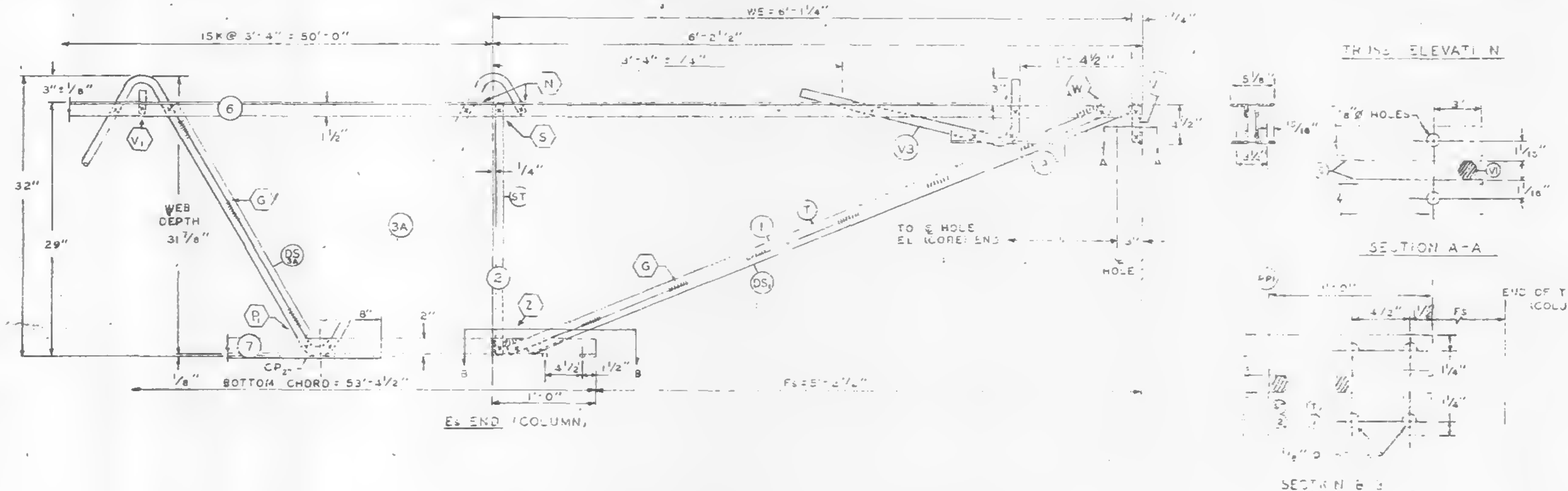
FLOOR TRUSS C32T31 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-ABI-28
PLATE 1
APPROVED FOR FABRICATION BY James [illegible] FOR P.O.N.Y.A. DATE 2/24/69
DRAWN BY: [illegible] DATE JAN. 21, 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T. ILCKURA DATE JAN. 21, 1969
IN CHARGE OF PROD. REV.
DETAILED BY: A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 231

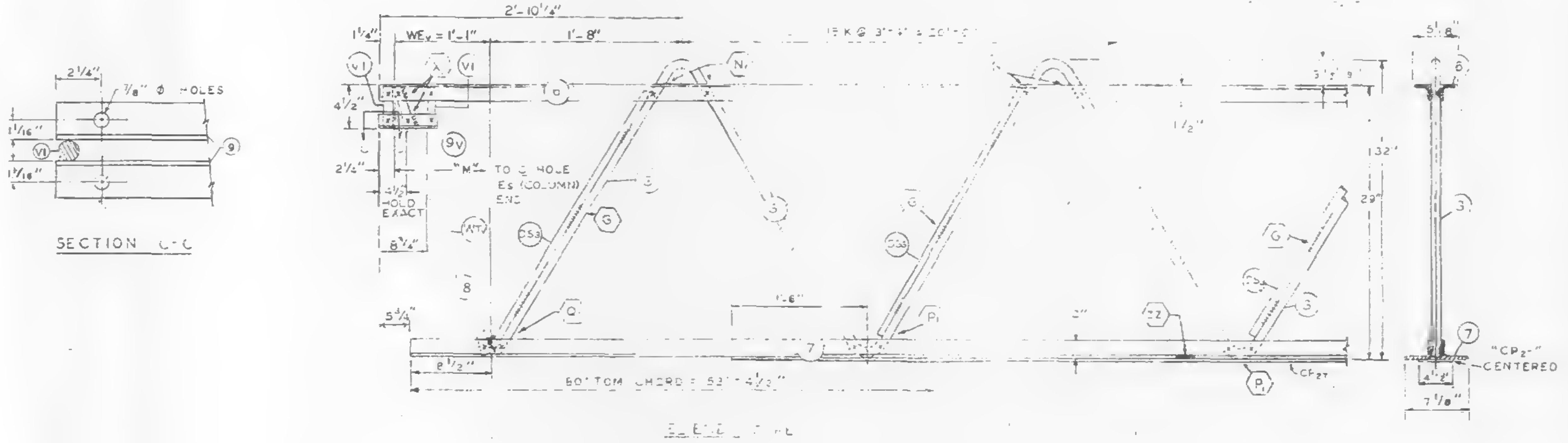

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
WEV 1'-8"
FILLER REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP14)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB
STD. K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
TOTAL CHORD PLATE LENGTH = 48'-10"
CP2T
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB
2'-6½"
Fs = 5'-2½"
COL.
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 53'-4½"

ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST287.

CHORD PLATE DETAILS SHOWN ON SHEET ST287.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-1



DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.



VOID

**FABRICATION REQUIREMENTS**

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 5[illegible] | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/[illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

REF. DRWG.

| | |
|---|---|
| 7-AB1-28 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT

LACLEDE ELECTROCOAT
REQ NO. 10001

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | SIZE | [illegible] | MK | TYPE STEEL | [illegible] | LENGTH | [illegible] | [illegible] | [illegible] | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T31-59075 | 5 | A242 | 2"x1½"x[illegible] | [illegible] | A242 | [illegible] | 55'-4½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 56'-0¾" 9K @ 3'-4" = 30'-0"<br>[illegible] | [illegible] | 14 | 14 | [illegible] | P5 | A36 | ⅜x3.39 | 48'-10" |

| COLUMN END | Es END | TRUSS DESIGNATION | [illegible] | | | | | | | | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | SIZE | [illegible] | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T31-59075 | 4 | A242 | 2"x1½"x.25 | [illegible] | 6'-1¼" | A242 | 1.14 | 6'-3⅛" | 3 | A242 | 1.14 | [illegible]4⅞" | A242 | 1.14 | [illegible]4⅞" | [illegible] | 1.14 | 2'-5½" | DS1 | A242 | .92 | 6'-3⅛" | DS3A | A242 | .75 | 2'-6¾" |

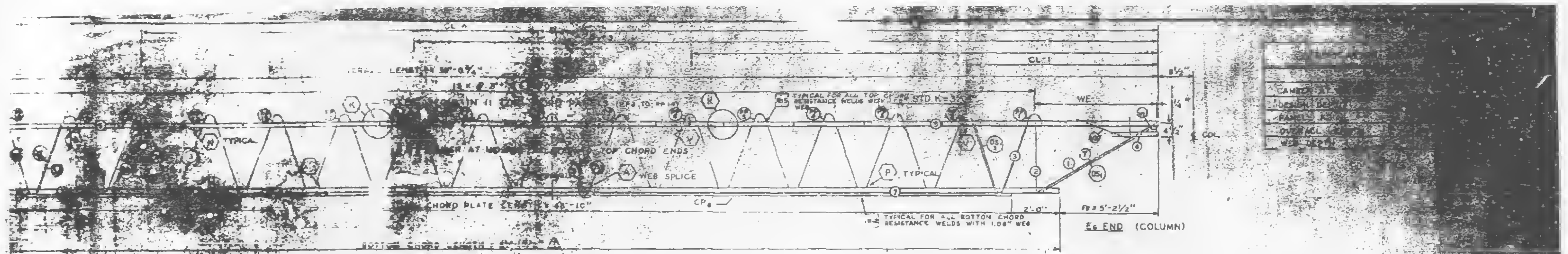
| CORE END | EL END | TRUSS [illegible] | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER | | | WEB "WEV" | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH 3 REQ'D | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH 2 REQ'D | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | [illegible] | DIA | LENGTH |
| | | C32T31-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS3 | A242 | .98 | 2'-5¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-6¼" |

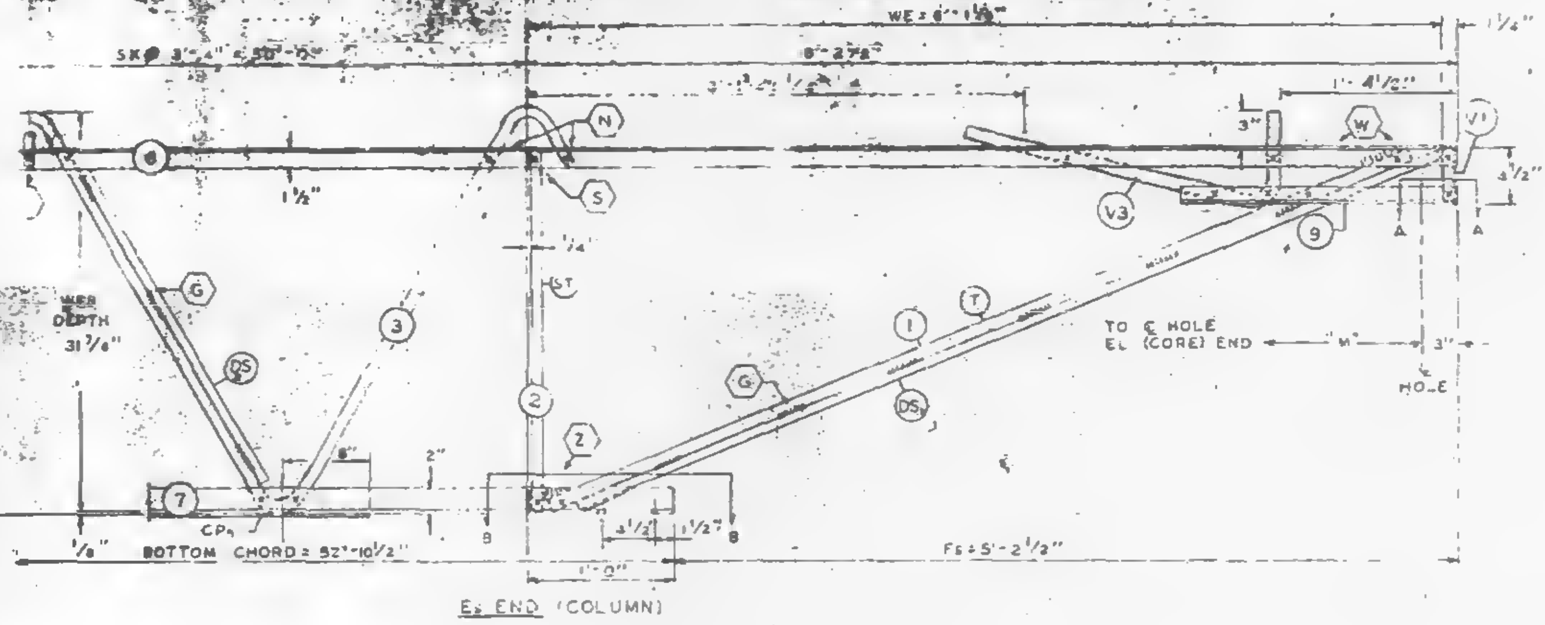
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T31 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

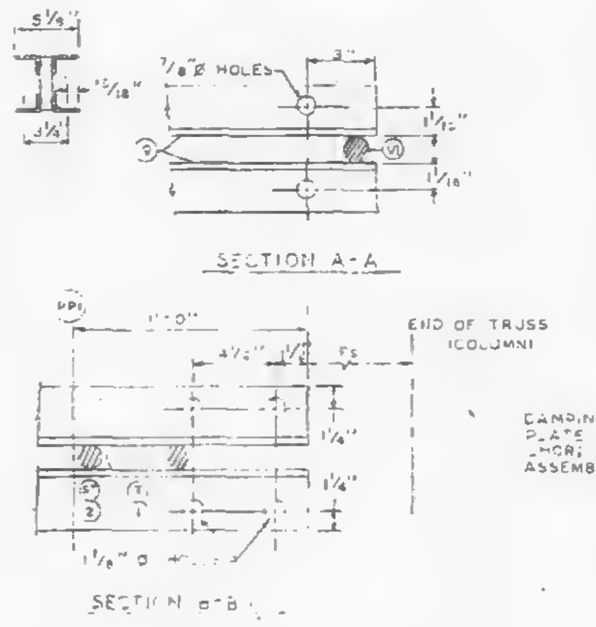
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-28 | PLATE |
| APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. | DATE | DRAWN BY Lee<br>DATE JAN. 21, 1969 | |
| APPROVED FOR FABRICATION BY ______ FOR FABRICATOR | DATE | CHECKED BY T.M. CHURA<br>DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 231 |





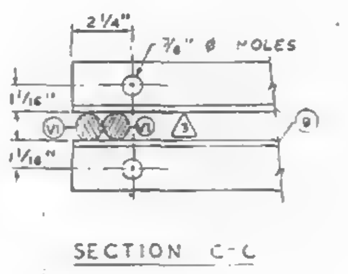
TRUSS ELEVATION



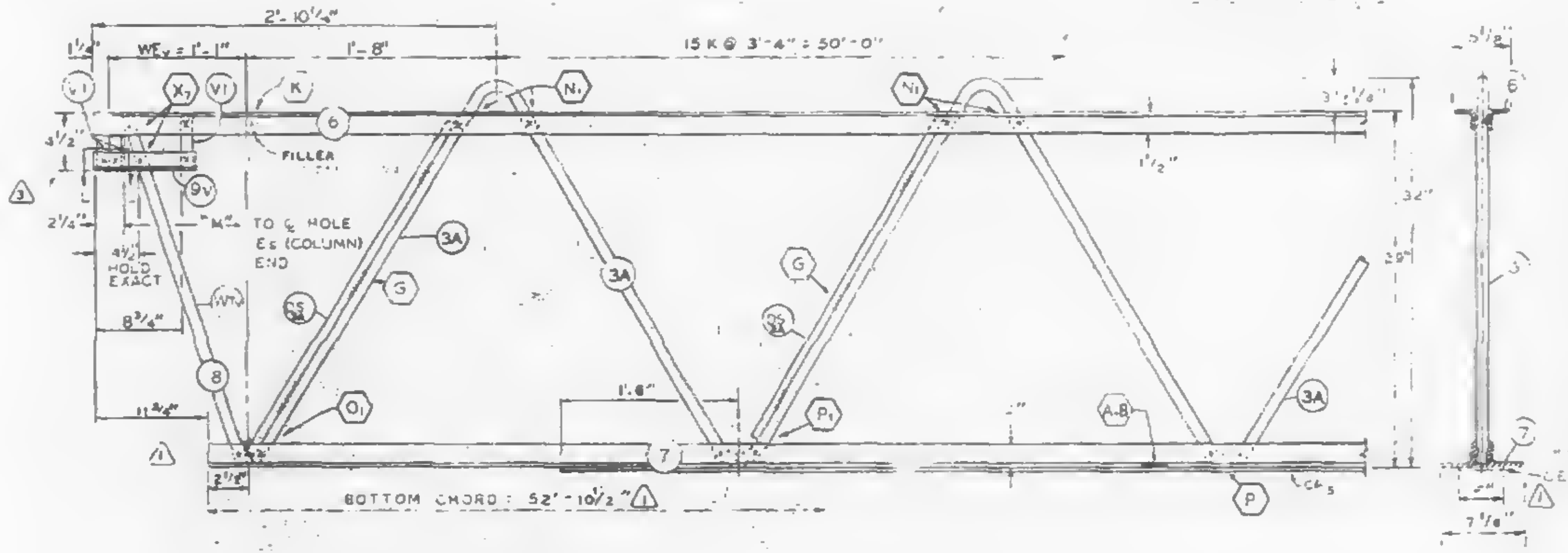
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST29D, ST291, ST292, ST293, ST 294 & ST 286. △3

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR /1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-2

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD, LOC. END IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



EL END (CORE)

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △4 | 3-11-69 | AS NOTED | G.D.C. |
| △3 | 3-3-69 | AS NOTED | G.D.C. |
| △2 | 2-18-69 | AS NOTED | T.M.C. |
| △1 | 1-29-69 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-A81-29 | 1-6-68 |
| 7-A81-52 | 2-15-68 |
| 7-A86-14 | 1-3-68 |
| 7-A81-54 | 11-25-68 |
| 7-A81-53 | 7-22-68 |
| 7-A83-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" △2 | | | | | FILLER | | CONNECTION FILLER △2 | | | CHORD PLATE | | | | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH △1 | MK | TYPE STEEL | DIA | LENGTH | NO. OF | NO. | DIA | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T32-59075 | 5 | A242 | 2"x1½"x.37" | 59'-0¾" | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | [illegible] | 12½K @ 3'-4" = 41'-8"<br>3 K @ 3'-4" = 10'-0" | 12 | 1.09 | 3<br>1 | 1.09<br>1.14 | 0'-3"<br>0'-3" | CP8 | A36 | 4"x⅜" | 48'-10" | [illegible] 7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "DS" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T32-59075 | 9 | A242 | 2"x1½"x.37 △2 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .75 | 8'-3⅛" | DS3 | A242 | .75 | 2'-6¾" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER △3 MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH 12 REQ'D | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH 13 REQ'D | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T32-59075 | 9V | A242 | 2"x1½"x.37" △2 | 0'-10" | 1'-1" | DS1A | A242 | .75 | 2'-6¾" | — | — | — | — | A242 | 1.14 | [illegible]4¾" | — | — | — | — | — | 9 | A242 | 1 | 1.14 | 2'-8¼" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

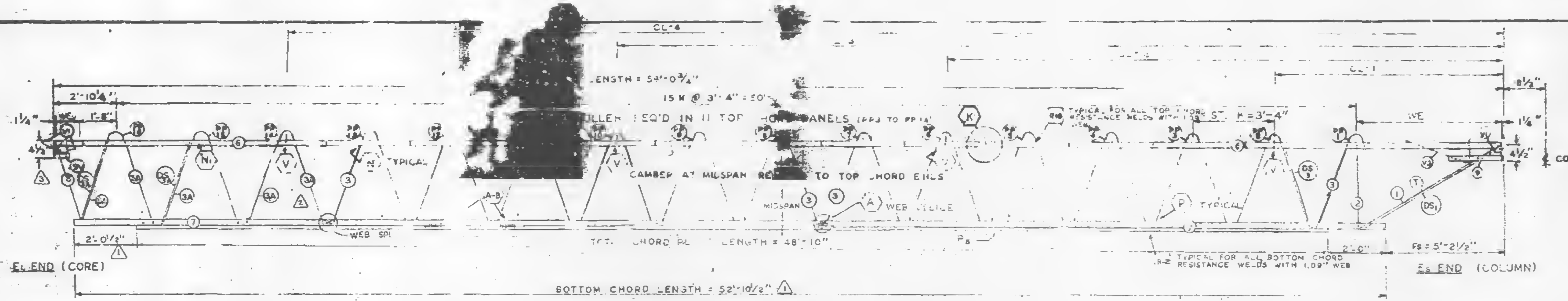
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

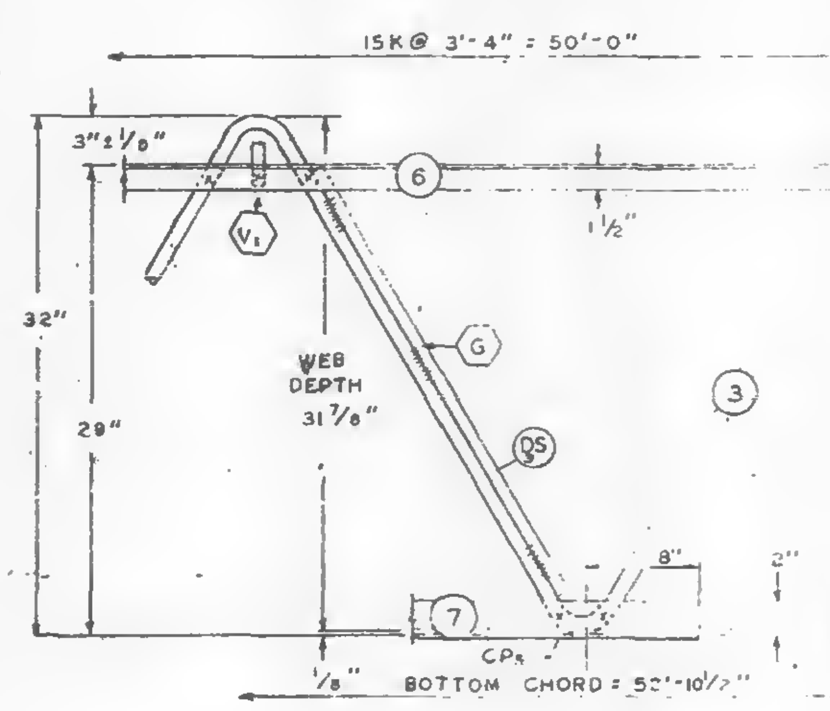
FLOOR TRUSS C32T32 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

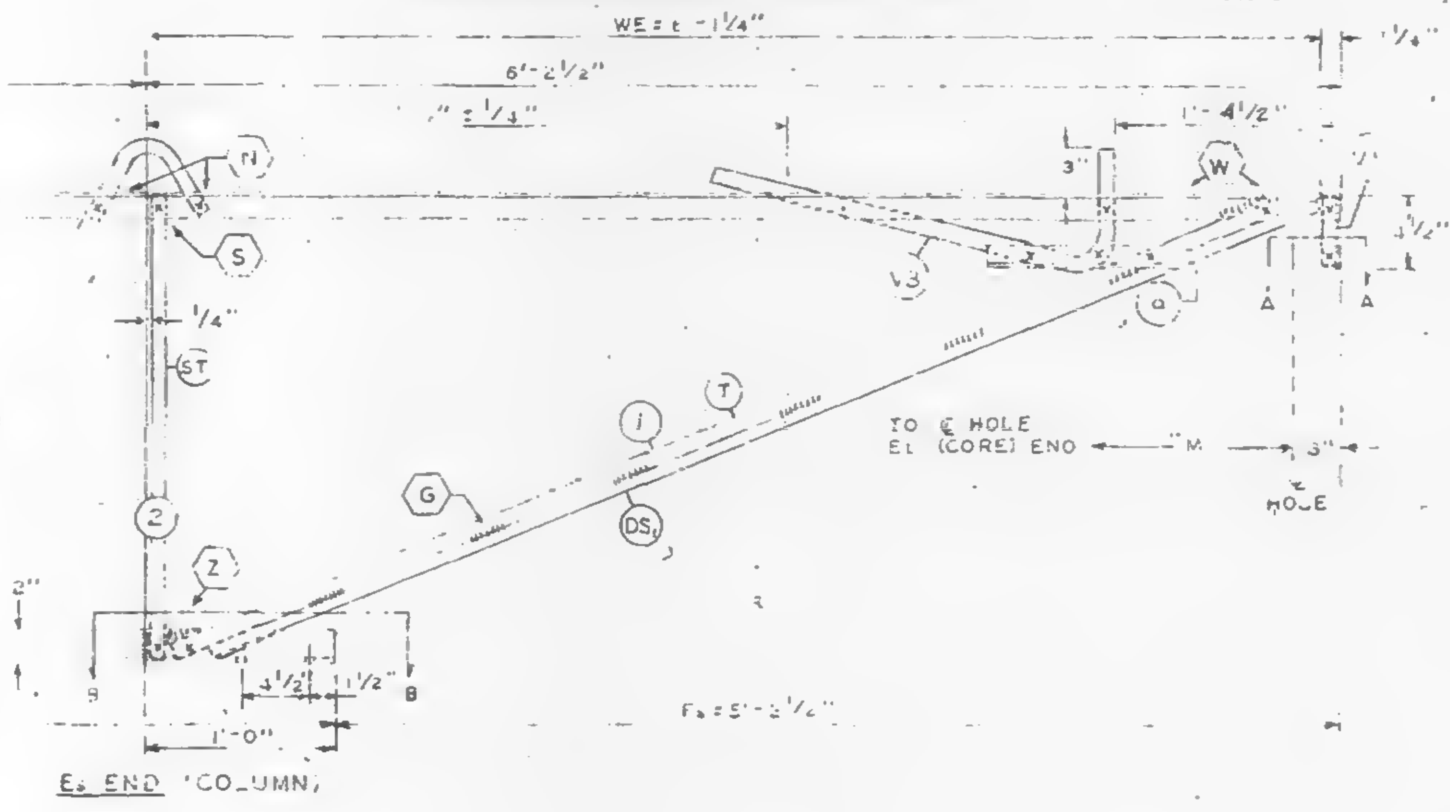
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A81-29 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. | DATE 3/24/69 | DRAWN BY Lee<br>DATE JAN. 21, 1969 | |
| APPROVED FOR FABRICATION FOR FABRICATOR | DATE | CHECKED BY: T.M.CHURA<br>DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO ST 232 |

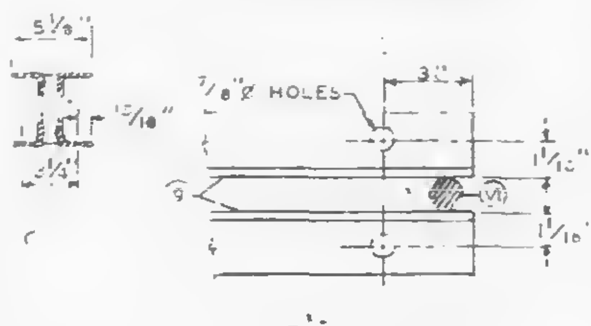
| FABRICATION RE[illegible]S | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | ± /8" |
| DESIGN DEPTH | [illegible] | ± 1/4" |
| PANEL "K" | [illegible] | ± 1/4" |
| OVERALL LENGTH | [illegible] | ± 3/8" |
| WEB DEPTH | [illegible] | ± 1/4 |


CL-4
CL-1
LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'
FILLER REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP14)
TYPICAL FOR ALL TOP CHORD ST. K=3'-4"
RESISTANCE WELDS WITH 1.09 WEB
CAMBER AT MIDSPAN RE[illegible] TO TOP CHORD ENDS
2'-10¼"
1'-8"
1¼"
4½"
8½"
1⅛"
4½"
COL.
WE
TYPICAL
MIDSPAN
WEB SPLICE
WEB SPL
TYPICAL
TOTAL CHORD PL LENGTH = 48'-10"
Ps
2'-0½"
2'-0"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09 WEB
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"

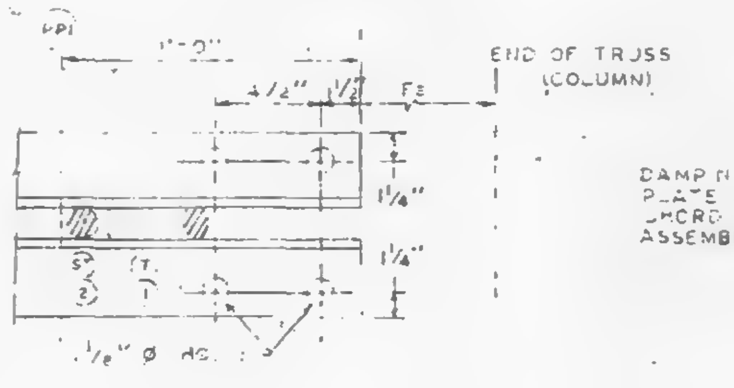




TRUSS ELEVATION



SECTION A-A

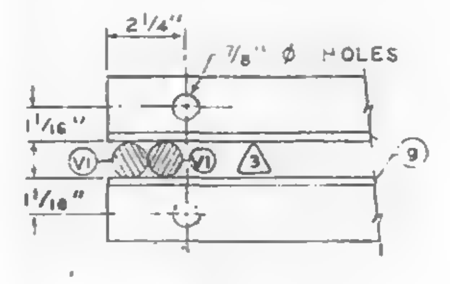


SECTION B-B

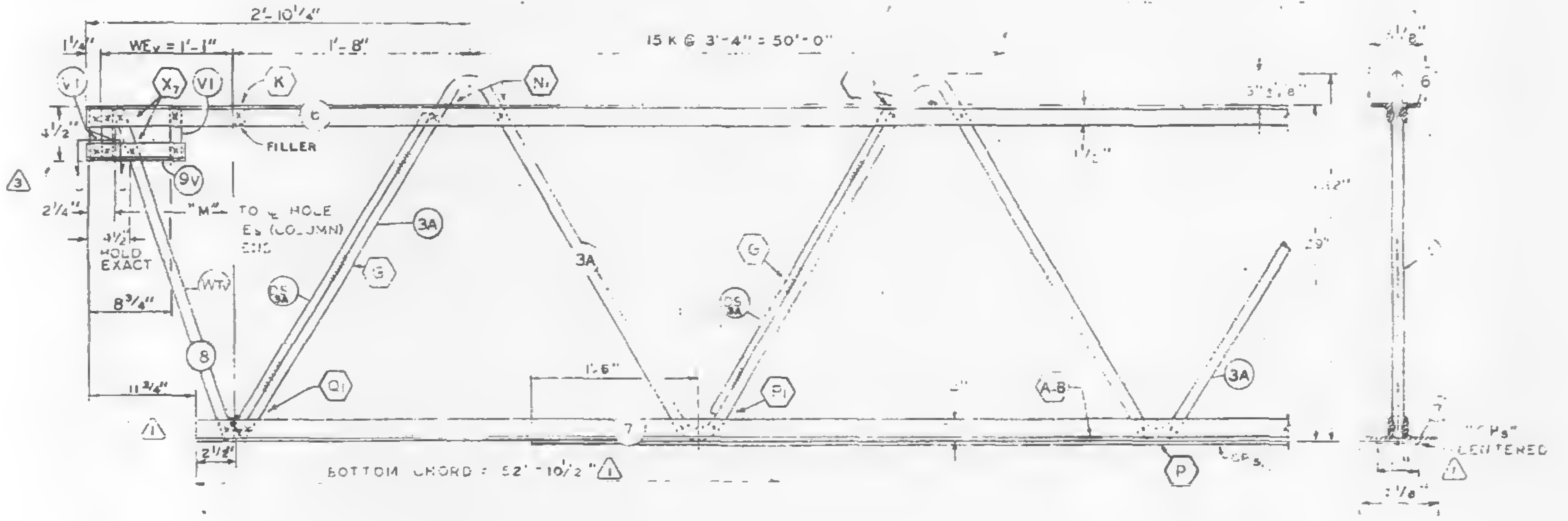
ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, ST294 & ST286. △3

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-2

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD. LOCATION IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



EL END (CORE)

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △3 | 3-3-69 | AS NOTED | G.D.C. |
| △2 | 2-18-69 | AS NOTED | T.M.C. |
| △1 | 1-29-69 | AS NOTED | T.M.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-29 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB8-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH | BOTTOM CHORD TWO ANGLES MK. | TYPE STEEL | CHORD SIZE | LENGTH △1 | [illegible] △2 MK. | TYPE STEEL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | MK. | [illegible] △2 | LENGTH | MK. | TYPE STEEL | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T32-59075 | 6 | A242 | 2"x1½"x.31" | 59'-¾" | - | A36 | 2"x2"x.37" | 52'-10½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>18'-8⅞" | 2½ @ 3'-4" = 41'-8"<br>3 K @ 3'-4" = 10'-0" | - △2 | 1.09 | 3 | 1.09<br>1.14 | 0'-3"<br>0'-3" | [illegible] | A36 | 4'-5⅞" △1 | 48'-10" | 7 |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLE MK. | TYPE STEEL | CHORD SIZE | LENGTH | WE | [illegible] MK. | TYPE STEEL | DIA | LENGTH | [illegible] MK. | TYPE STEEL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T32-59075 | 9 | A242 | 2"x1½"x.37 △2 | 2'-3" | 6'-1¼" | 1 | A242 | .14 | 6'-3⅛" | - | A242 | 14 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | A242 | .75 | 8'-3⅛" | DS3 | A242 | .75 | 2'-6¾" |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLE MK. | TYPE STEEL | SIZE | LENGTH | WEV | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH (2 REQ'D) | DOUBLE STRUT MK. | TYPE STEEL | DIA | LENGTH | END STIFFENER △3 TYPE STEEL | DIA | LENGTH | WEB "WEV" MK. | TYPE STEEL | DIA | LENGTH | WEB "WTV" MK. | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T32-59075 | 9V | A242 | 2"x1½"x.37" △2 | 0'-10" | 1'-1" | DS3A | A242 | .75 | 2'-8¾" | - | - | - | - | A242 | 1.13 | 3⅜" | - | - | - | - | 8 | A242 | 1.14 | [illegible] |

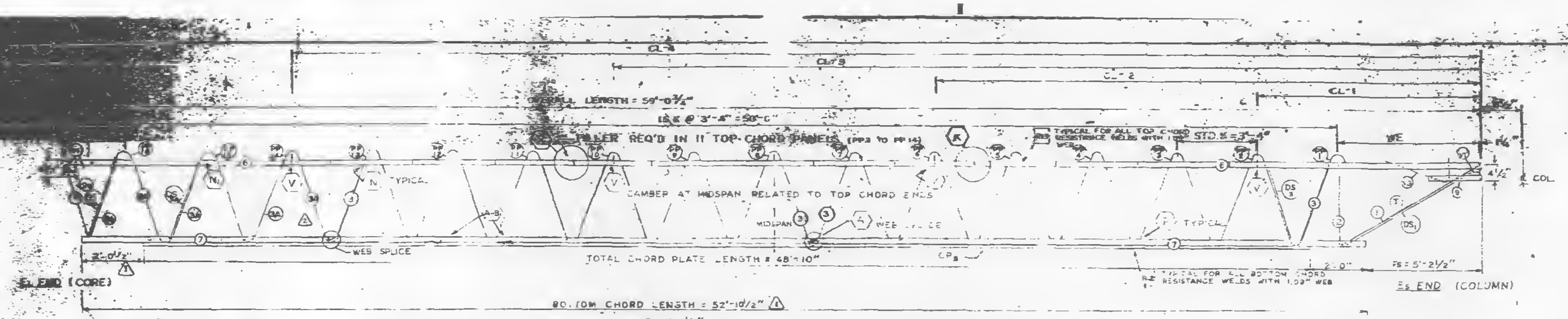
CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

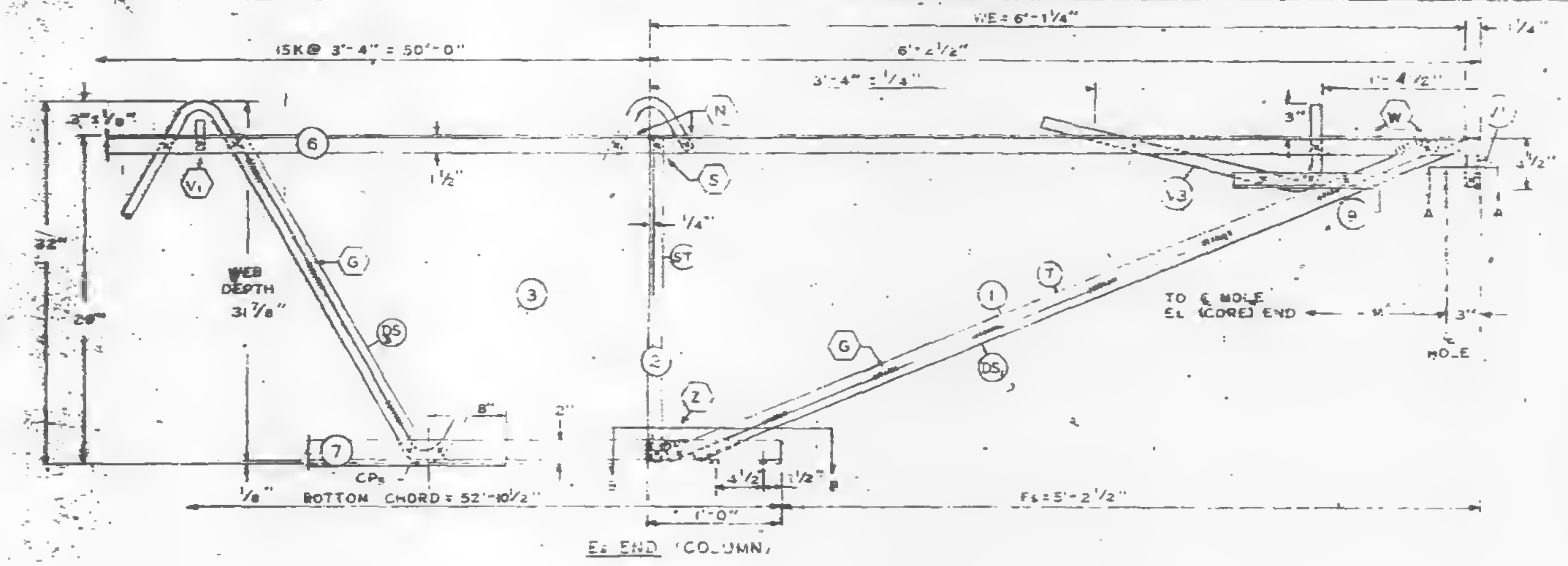
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T32 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

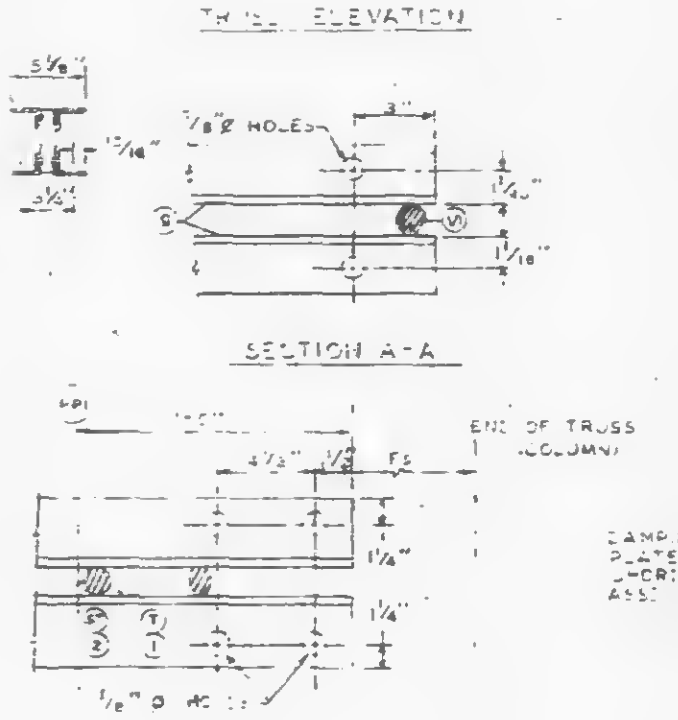
FABRICATION BY [illegible] STEEL COMPANY
FABRICATED BY MAD[illegible]
DESIGN DRAWING NO. 7-AB1-29
APPROVED FOR FABRICATION James White DATE 3/10/69
CHECKED BY dcc DATE JAN 21, 1969
APPROVED FOR FABRICATION DATE
DRAWN BY T.M.CHURA DATE JAN 21, 1969
IN CHARGE OF PROJ. [illegible]
FABRICATION CONTRACT NO. 2[illegible]
SHEET NO. ST 232


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15K @ 3'-4" = 50'-0"
FILLER REQ'D IN 11 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.09" WEB
STD. K = 3'-4"
WE
4½"
℄ COL.
TYPICAL
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
MIDSPAN
WEB SPLICE
TYPICAL
TOTAL CHORD PLATE LENGTH = 48'-10"
CPs
2'-0½"
2'-0"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.09" WEB
EL END (CORE)

Es END (COLUMN)



Es END (COLUMN)



TRUSS ELEVATION

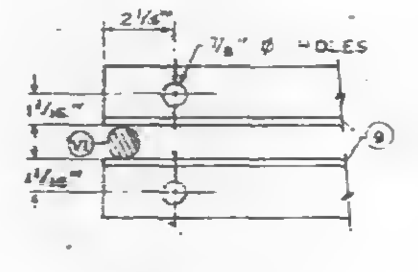
SECTION A-A

SECTION B-B

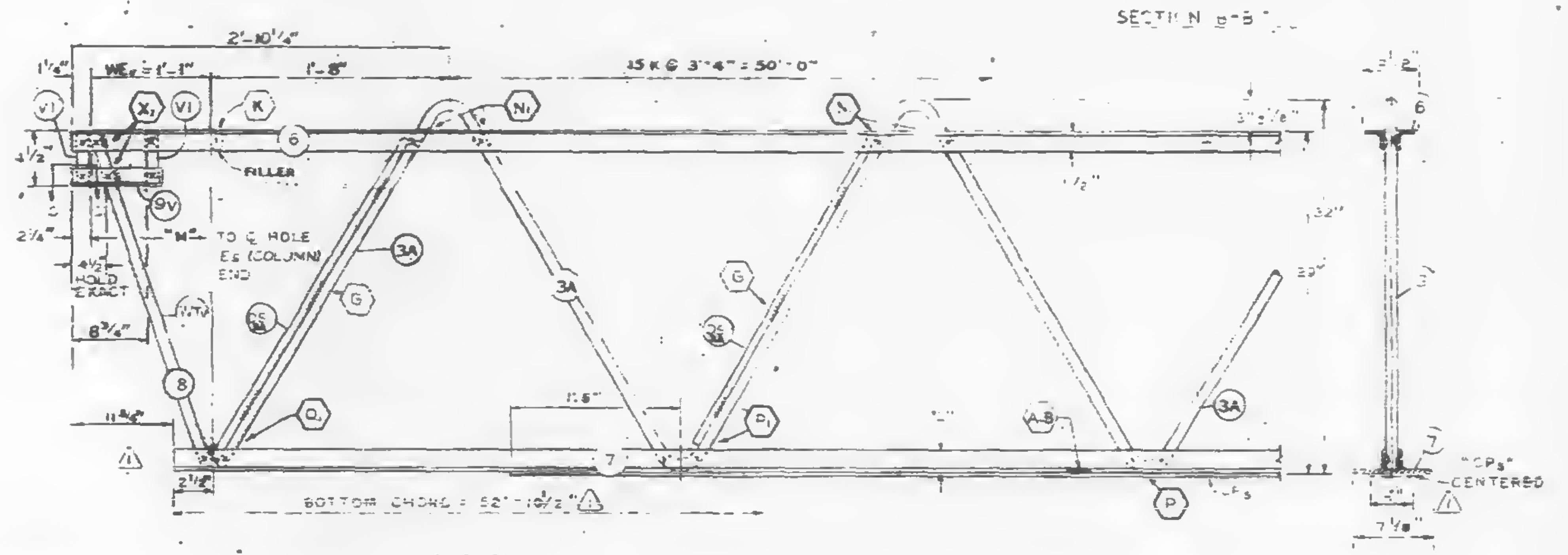
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST286. △2

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST24? FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-2

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASS'Y BY CONTRACT W.T.C. 223.00.



SECTION C-C



EL END (CORE)

| | | | |
|---|---|---|---|
| FABRICATION [illegible] | | | |
| CAMBER AT [illegible] | | | |
| DESIGN DEPTH | | | |
| PANEL K | 3'-4" | | |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" | |
| WEB DEPTH | 31 7/8" | ± 1/4 | |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △2 | 2-18-69 | AS NOTED | T.M.C. |
| △1 | 1-29-69 | AS NOTED | T.M.C. |

REF. DWGS.

| | |
|---|---|
| 7-AB1-29 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-34 | 1-3-69 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" △2 | | | | | [illegible] | | CONNECTION FILLER △2 | | | CHORD PLATE | | | | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH △1 | MK. | TYPE STEEL | DIA. | LENGTH | [illegible] | [illegible] | DIA. | MK. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | |
| C32T32-59075 | 6 | A242 | 2"x1½"x.31" | 59'-?¾" | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 78'-3¾"<br>18'-6¼" | 12½K @ 3'-4" = 41'-8"<br>3K @ 3'-4" = 10'-0" | [illegible] | 1.09 | 3<br>1 | 1.09<br>1.14 | 0'-3"<br>0'-3" | CPs | A36 | 4⅞"x⅜" | 48'-10" | [illegible] |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | C32T32-59075 | 9 | A242 | 2"x1½"x.37 | 2'-5" | 6'-1¼" | | A242 | .14 | 6'-3⅛" | | A242 | .14 | ?'-4⅞" | A242 | .14 | 0'-4⅞" | A242 | | 4" | DS1 | A242 | .75 | 5'-3⅛" | DS3 | A242 | .75 | 2'-6¾" |

△2

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WEV" | | | | | WEB "ATV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | | DIA. | LENGTH | MK. | TYPE STEEL | | DIA. | LENGTH |
| | C32T32-59075 | 9V | A242 | 2"x1½"x.37 | 0'-10" | 1'-1" | DS3A | A242 | .75 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-6¼" |

△2

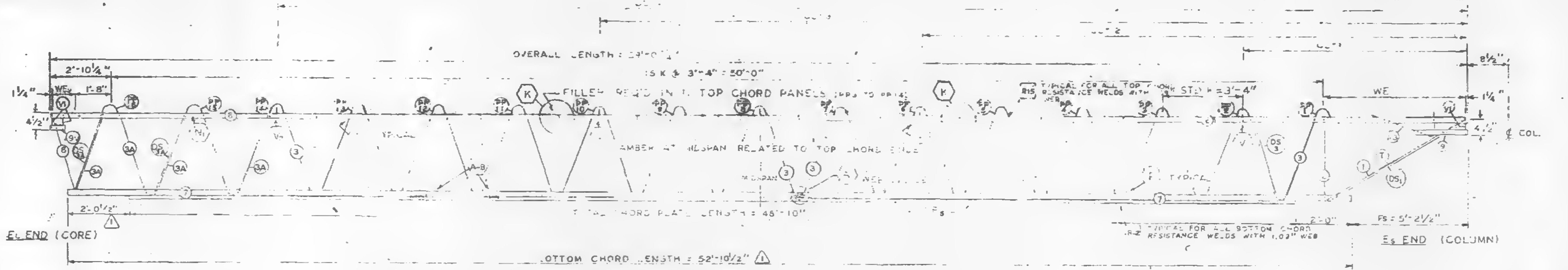
CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

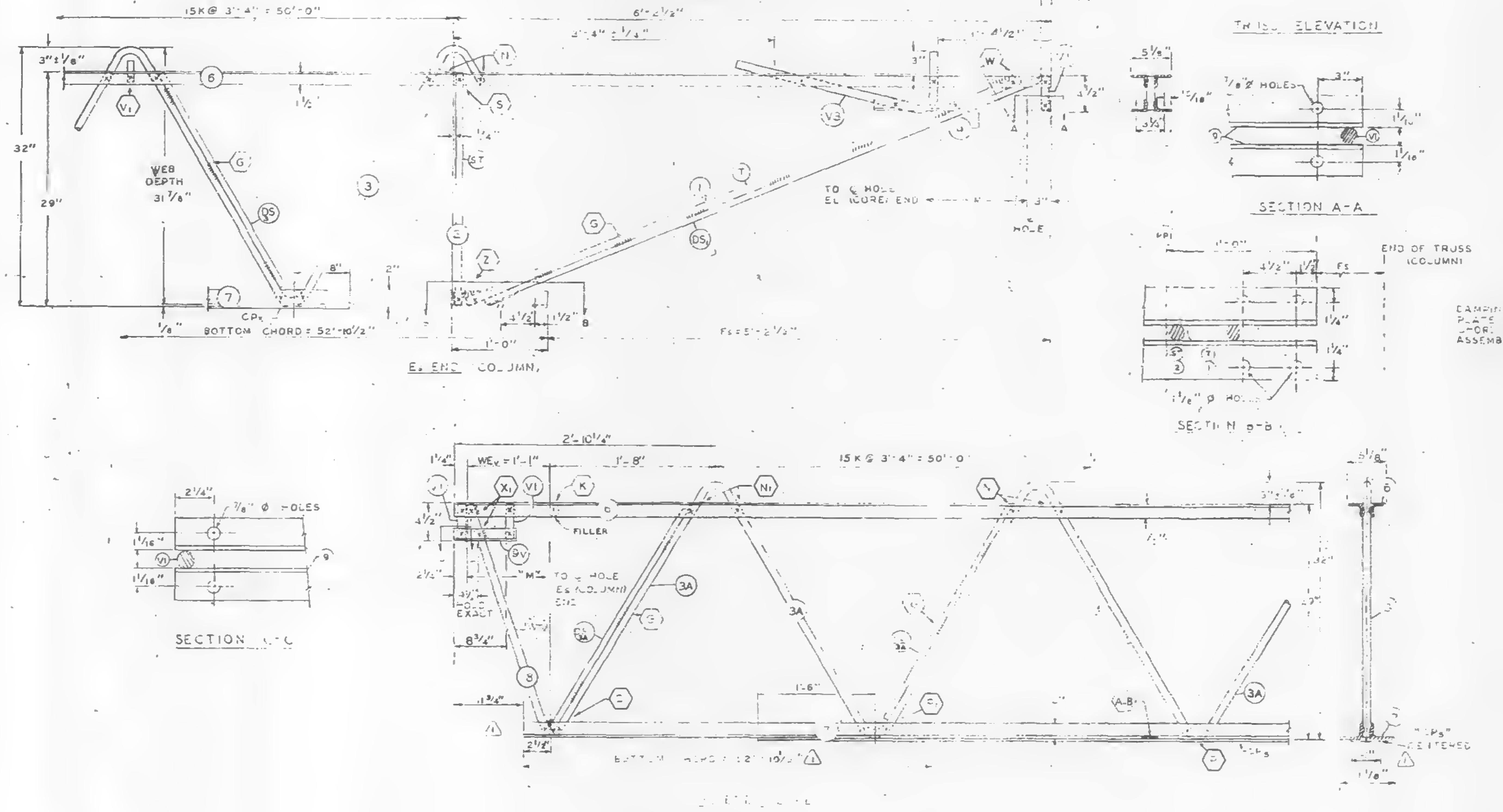
FLOOR TRUSS C32T32 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-29
PLATE
APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE 2/24/69
DRAWN BY: [illegible] DATE JAN 21, 1969
APPROVED FOR FABRICATION BY FOR FABRICATOR DATE
CHECKED BY: T.M.CHOKA DATE JAN. 21, 1969
IN CHARGE OF PROD. DEPT.
LACLEDE STEEL CO.
DETAILED BY A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST-232


OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
1'-8"
WEV
1¼"
4½"
K
FILLER
TYPICAL FOR ALL TOP CHORD
R15 RESISTANCE WELDS WITH
CAMBER AT MIDSPAN RELATED TO TOP CHORD
MIDSPAN
3
3A
DS
V1
TYPICAL
WEB
8½"
WE
¢ COL.
2'-0½"
TYPICAL CHORD PLATE LENGTH = 48'-10"
Fs
2'-0"
Fs = 5'-2½"
TYPICAL FOR ALL BOTTOM CHORD
R-2 RESISTANCE WELDS WITH 1.02" WEB
EL END (CORE)
Es END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"
WE = 6'-1¼"

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

Table: FABRICATION REQUIREMENTS



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST288.

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST293 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., $\boxed{\text{R-2}}$

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 1-29-68 | AS NOTED | T.M.C |

REF. DRWG.

| | |
|---|---|
| 7-AB1-29 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB2-14 | 1-3-68 |
| 7-AB1-54 | 1-25-68 |
| 7-AB1-53 | 1-22-68 |
| 7-AB2-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
REG NO 10001

| TRUSS DESIGNATION | [illegible] | | | | | | | ⚠1 | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | | | | | | | | | | | |
| C32T32-59075 | 5 | A242 | 2"x1½"x.21" | [illegible] | [illegible] | A36 | [illegible] | 52'-10½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 81'-10¼"<br>15'-6⅞" | 13K @ 3'-4" = 43'-4"<br>2/2K @ 3'-4" = 8'-4" | — | 1.14 | [illegible] | 1.14 | [illegible] | CPs | [illegible] | 4'-1⅞" ⚠1 | 48'-10" | 7 |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLE | | | | | | | | | | | | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | | C32T32-59075 | 9 | A242 | 2"x1½"x 6 ,31 | 2'-3" | 6'-¼" | | A242 | 1.14 | 6'-3⅛" | | A242 | .14 | [illegible]⅞" | | A242 | 1.14 | DS1 | A242 | .75 | 6'-3⅛" | DS3 | A242 | .75 | 2'-6¾" |

| CORE END | EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "W" | | | | WEB "RTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | | DIA | LENGTH |
| | | C32T32-59075 | 9V | A242 | 2"x1½"x31" | 0'-10" | 1'-1" | DS3A | A242 | .75 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | 8 | A242 | | 1.14 | 3'-6¼" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

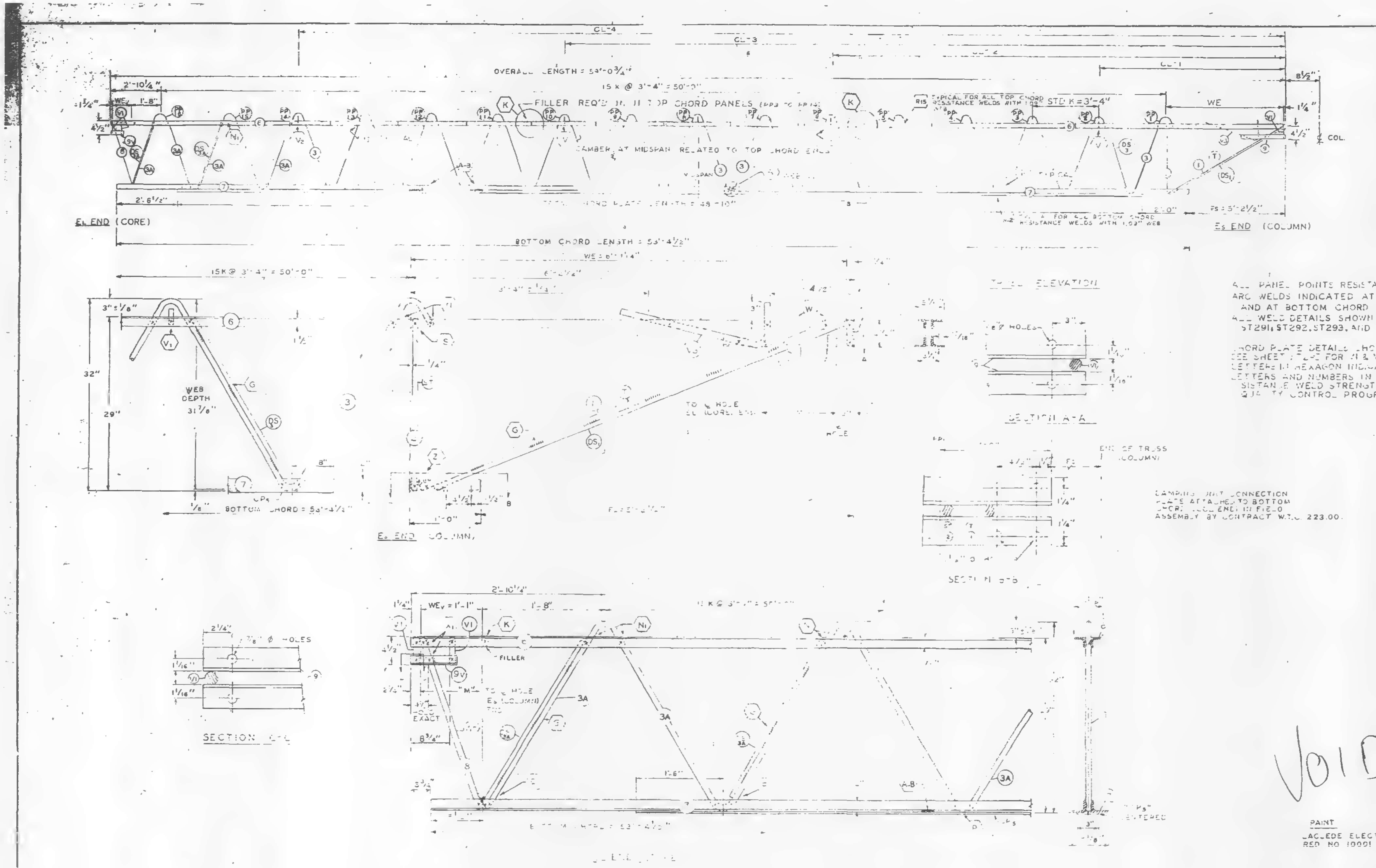
Structural & Civil Engineers
X
2/9/69 SL

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER BUILDINGS
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T32 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-29 | |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. DATE | DRAWN BY Lee DATE JAN. 21, 1969 | |
| APPROVED FOR FABRICATION BY LACLEDE STEEL CO. FOR FABRICATOR DATE | CHECKED BY T.M. CHURA DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 232 |



| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2" | + 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K" | [illegible] | ± 1/4" |
| OVERALL LENGTH | -0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 4 |

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, AND ST288.

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET [illegible] FOR [illegible] DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-2

CAMPING BUTT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD [illegible] END IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

VOID

REF. DRWG.

| | |
|---|---|
| 7-AB1-29 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | [illegible]-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | [illegible]-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | MK | TYPE STEEL | SIZE | [illegible] | [illegible] | [illegible] | LENGTH | MK | TYPE STEEL | DIA | LENGTH | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T32-59075 | 6 | A242 | 2"x1½"x.31" | [illegible] | [illegible] | [illegible] | 55'-4½" | 3<br>3A | A36<br>A242 | 1.09<br>1.14 | 81'-10½"<br>15'-6⅞" | 13K 3'-4" = 43'-4"<br>2½K 3'-4" = 8'-4" | 14 | 14 | 3"x¼" 48'-10" |

| COLUMN END | Es END TRUSS DESIGNATION | MK | TYPE STEEL | SIZE | LENGTH | [illegible] | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T32-59075 | 9 | A242 | 3"x1½"x.25" | 2'-3" | [illegible] | [illegible] | 14 | 6'-3⅛" | A242 | 14 | [illegible] | DS₁ | A242 | .75 | 6'-3⅛" | DS₃ | A242 | .75 | 2'-6¾" |

| CORE END | El END TRUSS DESIGNATION | BEARING ANGLE MK | TYPE STEEL | SIZE | LENGTH | WE | DOUBLE STRUT | | | DOUBLE STRUT | | | END STIFFENER | | | WEB "WEV" | | | WEB "ATV" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | MK | TYPE STEEL | LENGTH | MK | TYPE STEEL | LENGTH | TYPE STEEL | [illegible] | [illegible] | MK | TYPE STEEL | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T32-59075 | 9V | A242 | 2"x1½"x.31" | 0'-10" | 1'-1" | DS₃A | A242 .75 | 2'-9¾" | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | 8 | A242 | 1.14 | 2'-6¼" |

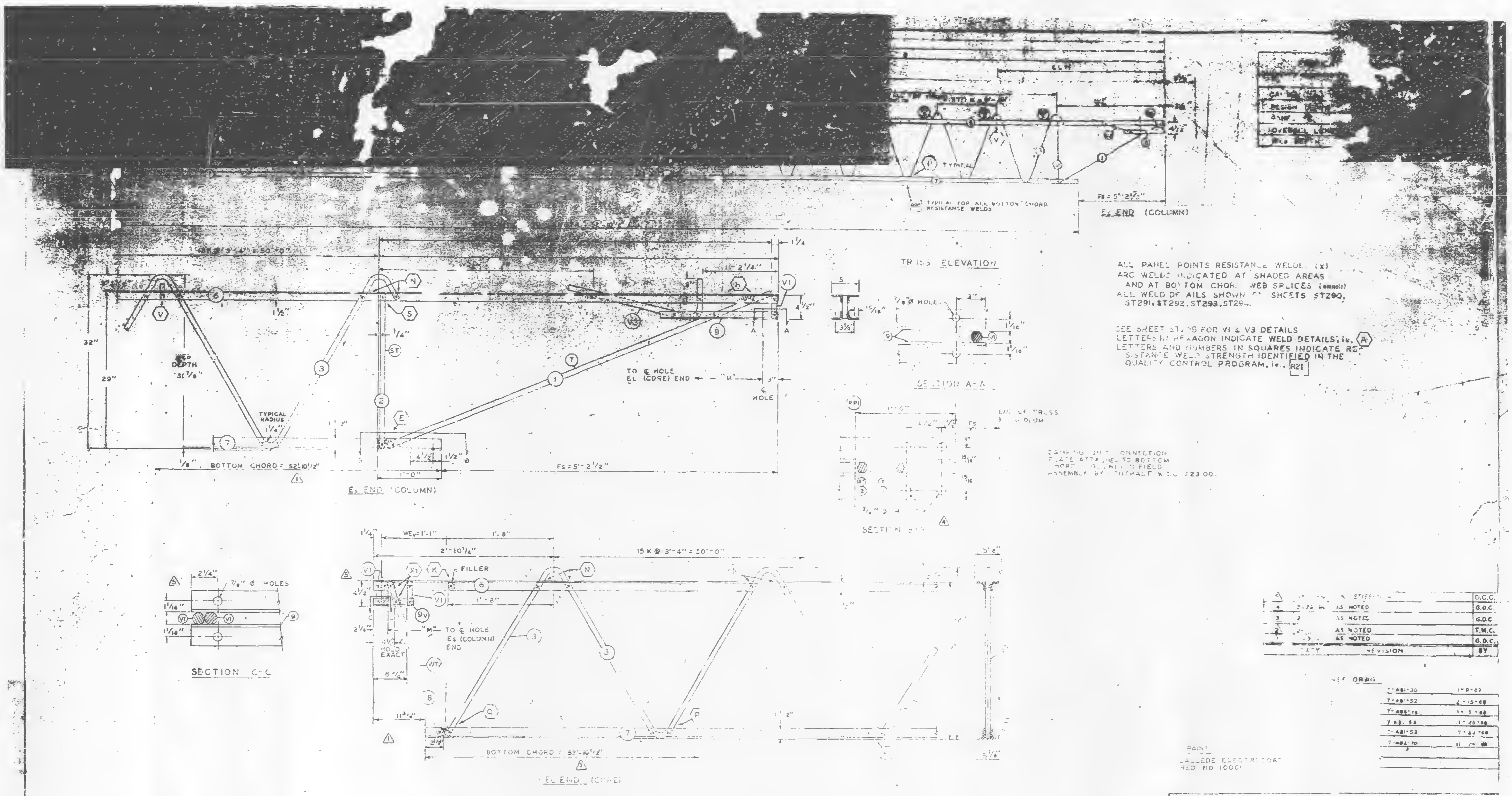
CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T32 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, [illegible]
DESIGN DRAWING NO 7-AB1-29
APPROVED FOR FABRICATION BY [illegible] FOR P. of N.Y.A. DATE
DRAWN BY Lee DATE JAN 21, 1969
APPROVED FOR FABRICATION BY [illegible] FOR FABRICATOR DATE
CHECKED BY T.M. CHURA DATE JAN 21, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A. CARL WEBER
FABRICATION CONT. NO W.T.C. 221
SHEET NO. ST 232



ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, ST294.

SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R21

| | | | REVISION | BY |
|---|---|---|---|---|
| 5 | | | STIFFENER | D.C.C. |
| 4 | 2-26 | | AS NOTED | G.D.C. |
| 3 | 2 | | AS NOTED | G.D.C |
| 2 | | | AS NOTED | T.M.C. |
| 1 | | 3 | AS NOTED | G.D.C. |
| | DATE | | REVISION | BY |

REF DRWG

| | |
|---|---|
| 7-ABI-30 | 1-9-69 |
| 7-ABI-52 | 2-15-68 |
| 7-ABI-14 | 1-3-68 |
| 7-ABI-54 | 11-25-68 |
| 7-ABI-53 | 7-22-68 |
| 7-ABI-70 | 11-25-68 |

PAINT
LACLEDE ELECTRICOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | [illegible] | | | | MAIN "A" | | | | | CONNECTION FILLER | | | | [illegible] ANGLES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | TYPE STEEL | DIA | LENGTH | | | DIA | | DIA | LENGTH | MK | TYPE STEEL | | LENGTH |
| C32T33 - 59075 | 6 | A242 | 2"x1½"x.26" | 54'-5¾" | 7 | | 2"x1½"x.26" | 52'-10½" | A36 | 1.09 | 97'-0" | 15½ K @ 3'-4" = 51'-8" | 11 | 1.09 | 4 | 1.09 | 0'-3" | — | — | — | — |

COLUMN END

| Es END TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | LENGTH | [illegible] | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK V3 | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [illegible] ANGLE | | | | | | | | "ST" STRUT | | | END STIFFENER | | | | |
| C32T33-59075 | 9 | A242 | 2"x1½"x.37" | 1'-10" | 6'-1¼" | | A242 | 1.14 | 6'-5" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4³ | A24 | 1'-9½" |

CHECK DIMENSIONS FOR TRUSS FAB

| LOCATION OF [illegible] TRUSS | | | | |
|---|---|---|---|---|
| | | | | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-0½" | 5'-2½" |

CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH 3 REQ'D | MK | TYPE STEEL | PC | DIA | LENGTH | MK | TYPE STEEL | | DIA | LENGTH |
| C32T33-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | | – | – | – | – | — | — | — | — | A36 | 1.09 | 4⅜" | — | — | — | - | — | 8 | A36 | 1 | 1.09 | 2'-6¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.

PORT OF NEW YORK AUTHORITY

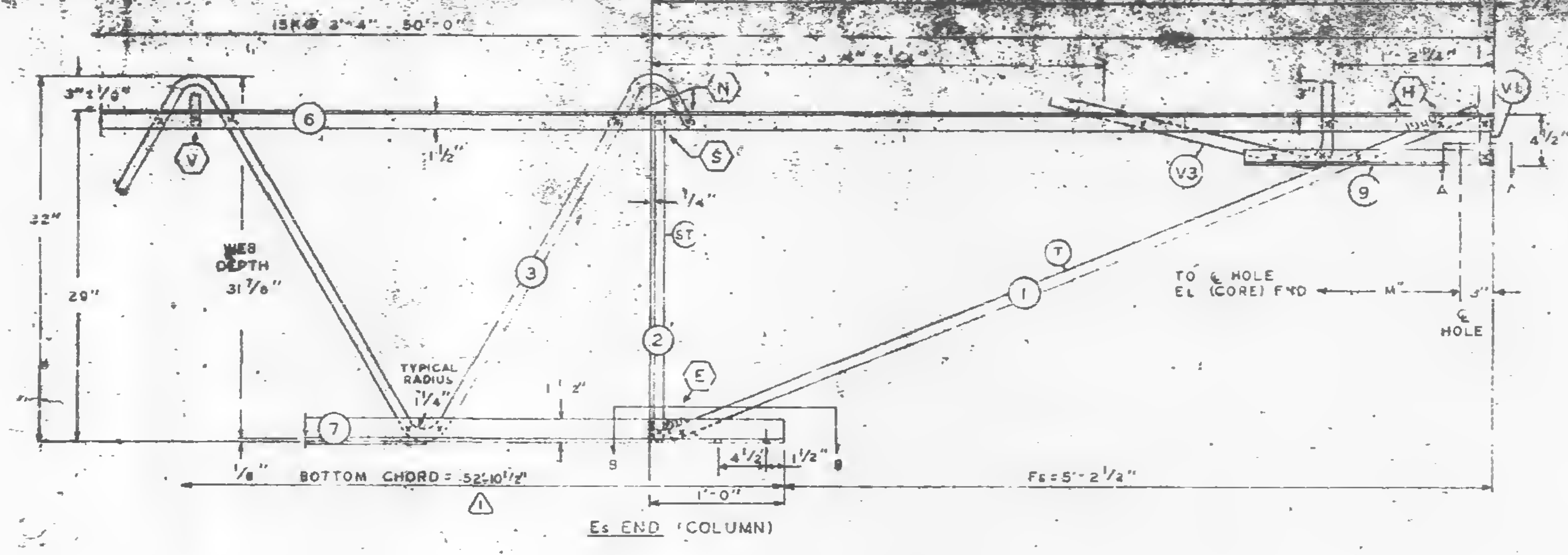
FLOOR TRUSS C32T33 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

| | | |
|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | |
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO 7-ABI-30 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A James White DATE 3/18/69 | DRAWN BY Lee DATE JAN 23, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY T.M.CHURA DATE JAN 23, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | FABRICATION CONT. NO W.T.C. 221 | SHEET NO. ST 253 |

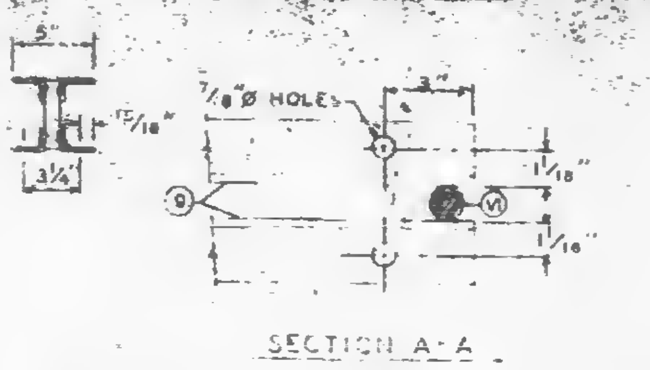
TRUSS ELEVATION

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST29

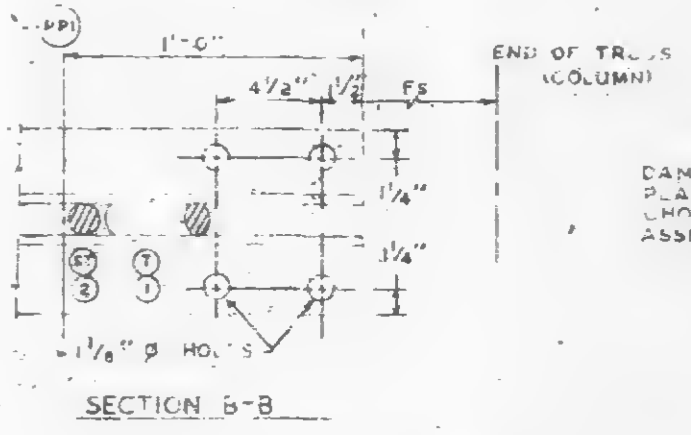
SEE SHEET ST2 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R21



Es END (COLUMN)

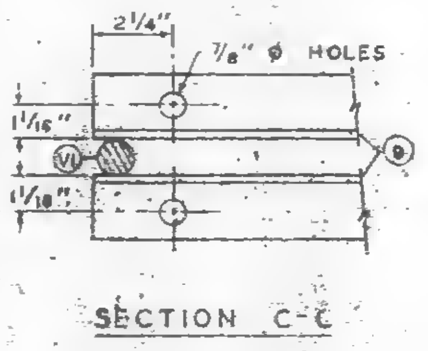


SECTION A-A

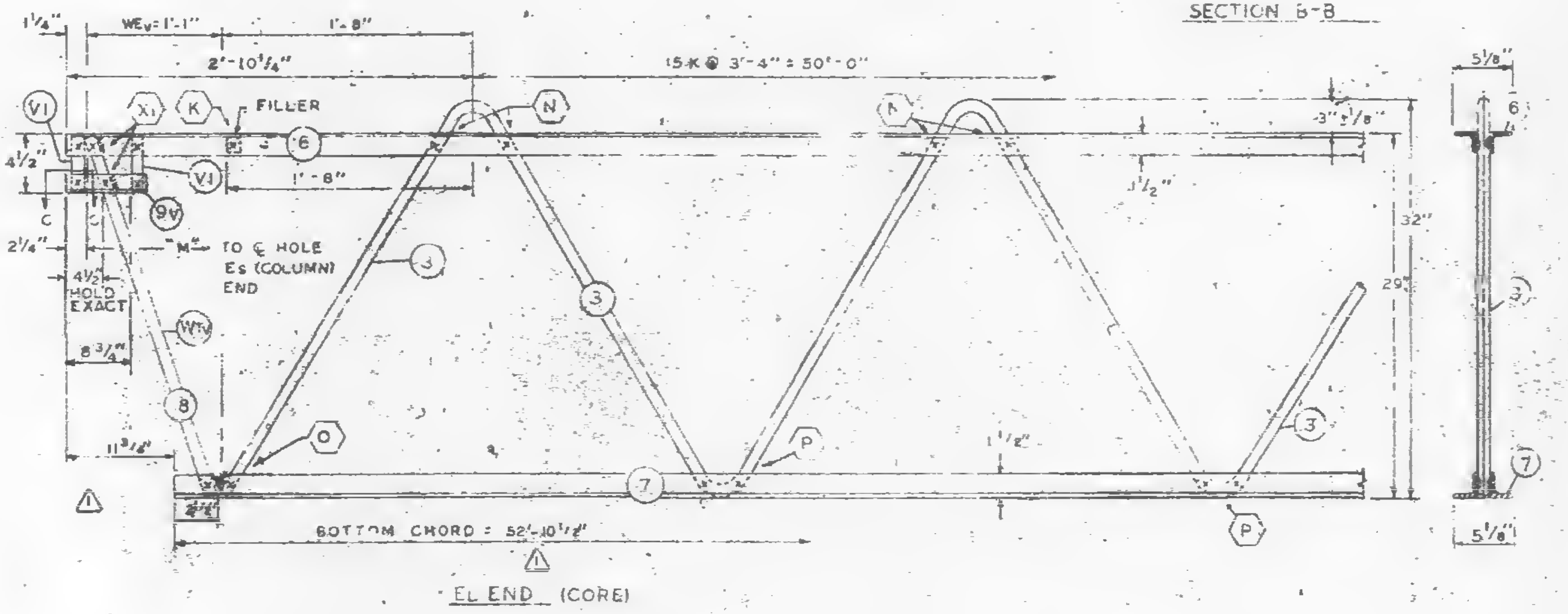


SECTION B-B

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



EL END (CORE)

| NO. | DATE | REVISION |
|---|---|---|
| 3 | 2-21-69 | AS NOTED |
| 2 | 2-13-69 | AS NOTED |
| 1 | 1-31-69 | AS NOTED |

REF. DRWG.

| | |
|---|---|
| 7-AA1-30 | 1-9-69 |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES 1 | | | | MAIN WEB "W" | | | | | FILLER | | CONNECTION FILLER | | | CHORD PLATE | | | | ¼" ⅞ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T33 - 59075 | 6 | A242 | 2"x1½"x.25" | 59'-0¾" | 7 | [illegible] | 2"x1½"x.25" | 52'-10½" | 3 | A36 | 1.09 | 97'-0" | 15½ K@ 3'-4" = 51'-8" | 11 | 1.09 | 4 | 1.09 | 0'-3" | — | - | - | - | 58'-7½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLE | | | | WF | DIAGONAL STRUT | | | | VERTICAL "ST" STRUT 2 | | | | END | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | V3 | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH 3 | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | STEEL | | LENGTH |
| | C32T33-59075 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6-1¼' | 1 | A242 | 1.14 | 6'-5" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4¾" | A242 | 1.14 | '-9½" |

2

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER 2 | | | WEB "VCV" | | | | | WEB "WTv" 2 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| | C32T33-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | | - | | - | - | — | —— | — | —— | A36 | 1.09 | 4⅜" | — | —— | — | — | —— | 8 | A36 | 1 | 1.09 | 2'-8¼" |

2

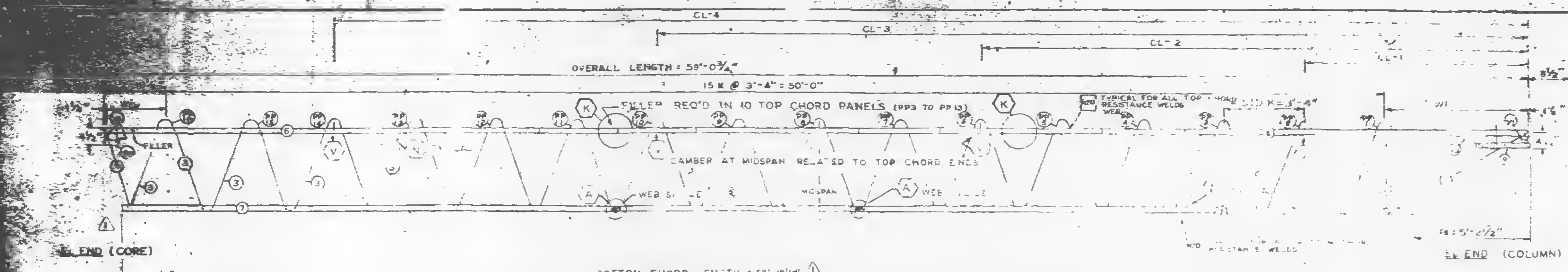
CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

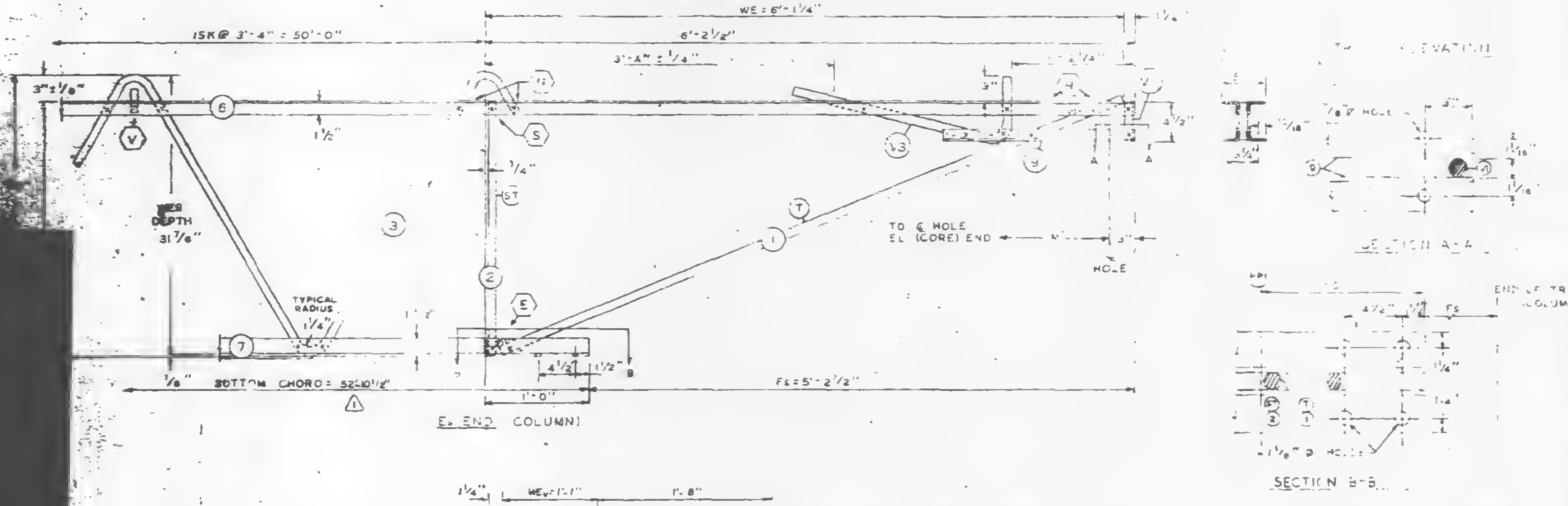
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T33 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AA1-30
PLATE
APPROVED FOR FABRICATION James White FOR PONY.A DATE 3/4/69
DRAWN BY
DATE JAN 23, 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
CHECKED BY: T. MOHRA
DATE JAN. 23, 1969
IN CHARGE OF PROD DEV
LACLEDE STEEL CO.
DETAILED BY CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
FILLER REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLER
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
Fs = 5'-2½"
℄ END (CORE)
℄ END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"

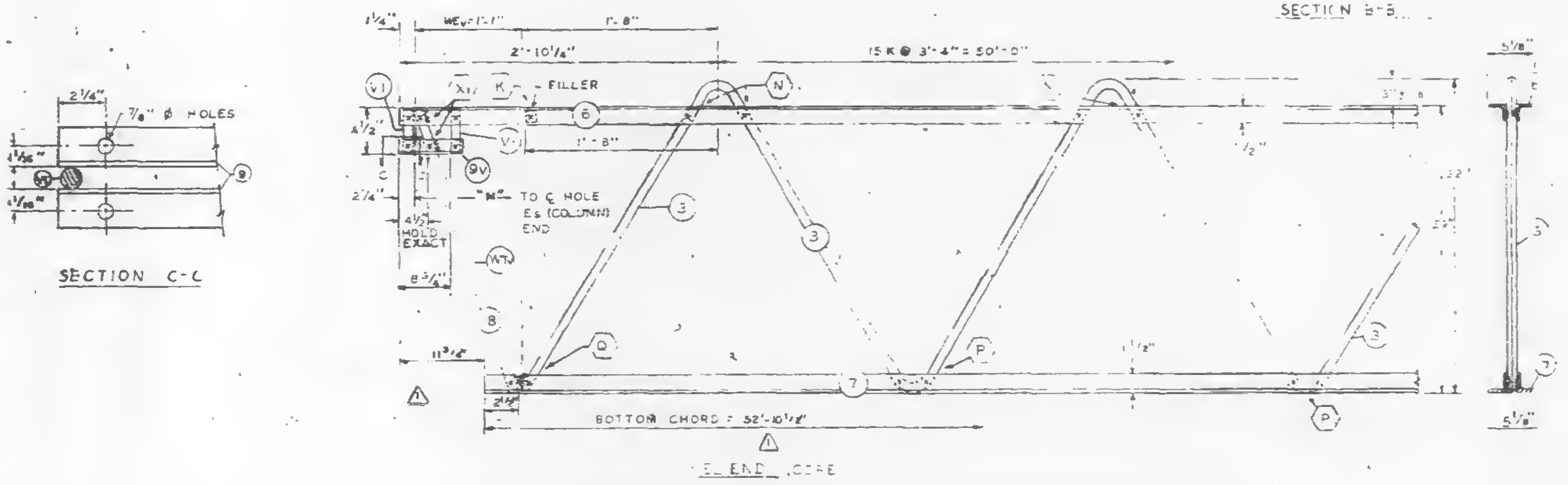
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| CAMBER AT MIDSPAN | 1½" | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | 3'-[illegible] | [illegible] |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. R21

CAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD ... IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.



| | | |
|---|---|---|
| △2 | 2-18-69 | AS NOTED |
| △1 | 1-31-69 | AS NOTED |
| NO. | DATE | REVISION |

REF. DRWG.

| | |
|---|---|
| 7-AB-30 | 1-8-[illegible] |
| 7-[illegible]-82 | [illegible] |
| 7-[illegible] | [illegible] |
| 7-[illegible]-34 | [illegible] |
| 7-AB-53 | 7-[illegible] |
| 7-[illegible] | [illegible] |

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES △1 | | | | MAIN WEB "A" | | | | | FILLER | | | CONNECTION FILLER | | PLATE | | | | "X" ½ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF | MK | DIA | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T33 - S80T5 | 6 | A242 | 2"x1½"x.25" | 59'-0¾" | 7 | A242 | 2"x1½"x.25" | 52'-10½" | 3 | A36 | 1.09 | 97'-0" | 15½ @ 3'-4" = 51'-8" | 11 | 1.09 | 4 | 1.09 | 0'-3" | — | — | — | — | 58'-[illegible]½" |

| TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL STRUT | | | | VERTICAL "ST" STRUT △2 | | | | END STIFFENER MK. V | | | MK. V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| C32T33-S80T5 | 8 | A242 | 2"x1½"x.37 | 1'-10" | 6'-1¼" | 1 | A242 | 1.14 | 6'-5" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 0'-4¾" | A2[illegible] | | 2'-9½" |

△2

| TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER △ MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" △2 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| [illegible]33-[illegible] | 8V | A242 | 2"x1½"x.37 | 0'-10" | — | - | - | - | - | — | — | — | — | A36 | 1.09 | 4⅜" | — | — | — | — | — | 8 | A36 | 1 | 1.09 | 2'-6¼" |

△2

CHECK DIMENSION FOR TRUSS FAB

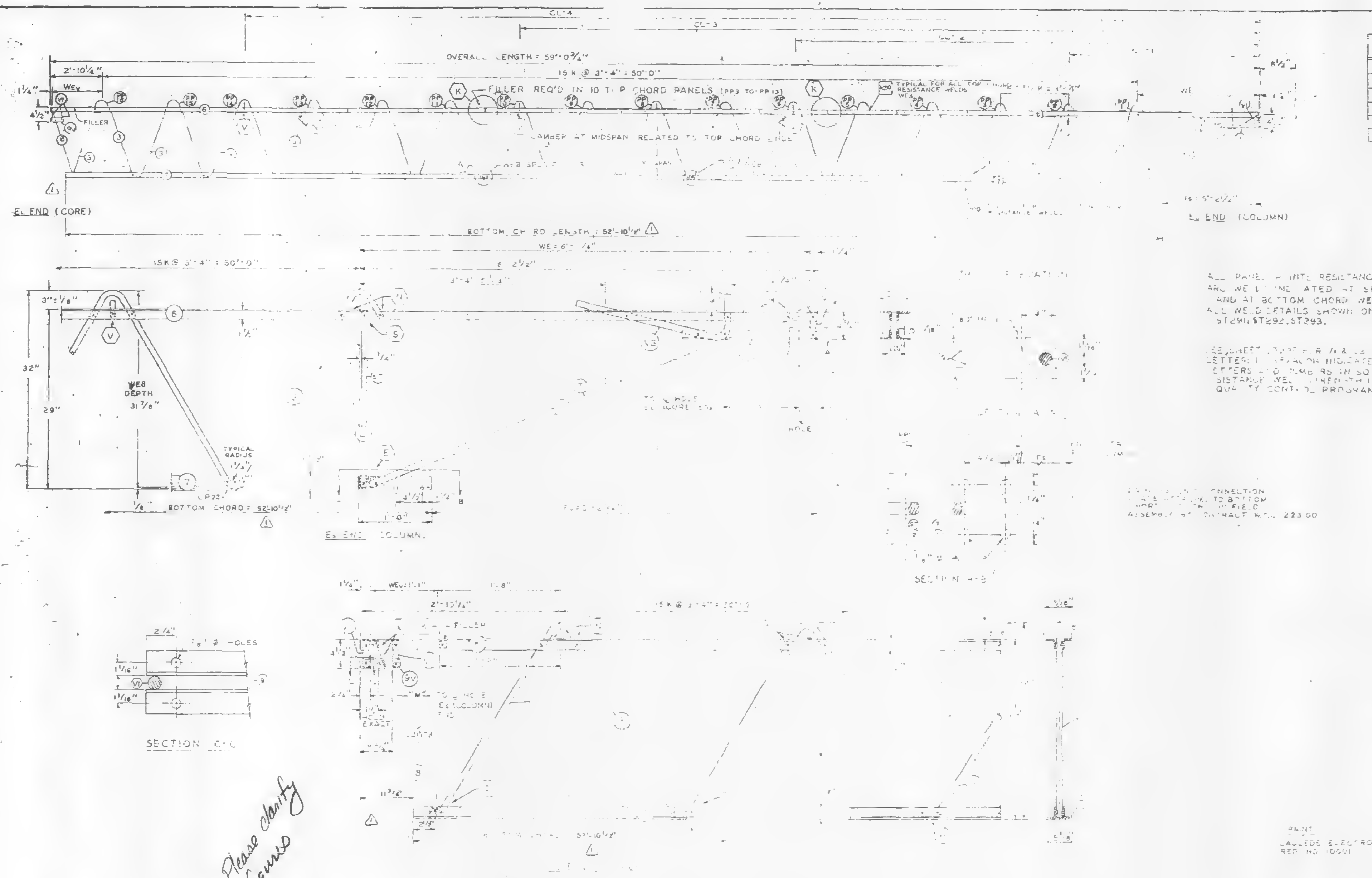
| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T33 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB-30 | PLATE |
| APPROVED FOR FABRICATION BY: James ... FOR P.O.N.Y.A. | DATE 2/24/69 | DRAWN BY: [illegible] DATE JAN. 23, 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE | CHECKED BY: [illegible] DATE JAN. 23, [illegible] | IN CHARGE OF [illegible] |
| DETAILED BY A CARL [illegible] | | FABRICATION CONT. NO. W.T.C. - 221 | SHEET [illegible] ST 233 |



ALL PANEL POINTS RESISTANCE WELD (X) ARE WELDED INDICATED AT SHADED AREA AND AT BOTTOM CHORD WEB SPLICES. ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET ST293 FOR R/1 & R/2 DETAILS. LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. (A). LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [h21]

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1¾" | ± ⅛" |
| DESIGN DEPTH | 29" | ± ¼" |
| PANEL "K" | 3' | ± ¼" |
| OVERALL LENGTH | [illegible]¾" | ± 3 [illegible]" |
| W F DEPTH | [illegible]⅝" | ± [illegible] |

| | | | |
|---|---|---|---|
| △1 | 1-31-69 | AS NOTED | G.D.C. |
| No. | DATE | REVISION | BY |

REF DRWG.

| | |
|---|---|
| 7-AB1-30 | 1-9-69 |
| 7-AB1-52 | [illegible]-5-68 |
| 7-AB4-14 | [illegible] |
| 7-AB-54 | 1-25-68 |
| 7-AB1-53 | [illegible]-24-68 |
| 7-AB-[illegible] | [illegible] |

PAINT
LACLEDE ELECTROCOAT
REF NO 10001

Please clarify figures

| TRUSS DESIGNATION | MK | TYPE STEEL | SIZE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T33-59075 | 6 | A242 | 2"x1½"x.25 | 52'-10½" | A36 | 1.09 | [illegible] | 1.09 | 1.09 | [illegible] | [illegible] | ½" |

COLUMN END

| Es END | TRUSS DESIGNATION | MK | TYPE STEEL | | | | TYPE STEEL | | | TYPE STEEL | | LENGTH | TYPE STEEL | | | TYPE STEEL | | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T33-59075 | 9 | A242 | 2"x1½" | [illegible] | [illegible]¼" | A242 | 1.14 | [illegible] | A36 | 1.09 | [illegible]⅜" | A242 | 1.14 | [illegible] | [illegible]2 | 1.14 | 2'-9½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLE MK | BEARING ANGLE TYPE STEEL | BEARING ANGLE SIZE | BEARING ANGLE LENGTH | WE | DOUBLE STRUT | DOUBLE STRUT | END STIFFENER TYPE STEEL | END STIFFENER | END STIFFENER LENGTH | "WCV" TYPE STEEL | "WCV" | "WCV" LENGTH | WEB "WTV" MK | WEB "WTV" TYPE STEEL | WEB "WTV" | WEB "WTV" LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T33-59075 | 97 | A242 | 2"x1½"x.25 | 0'-10" | | — | — | A242 | 1.14 | 4⅜" | — | — | — | 8 | A242 | 1.14 | 2'-6¼" |

CHECK DIMENSION FOR TRUSS FAB

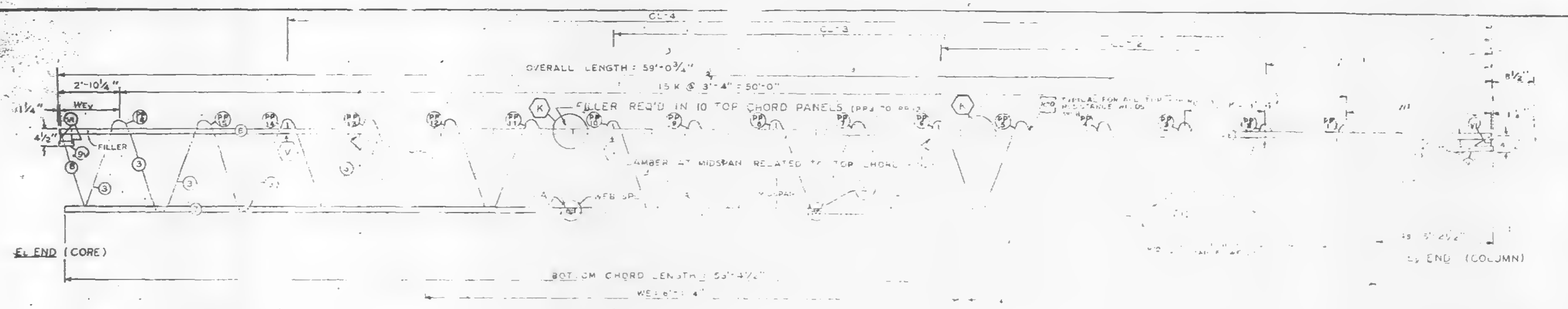
| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

X
2/19/69 SK

STEEL TRUSS DETAILS
FOR
[illegible]
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T33 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

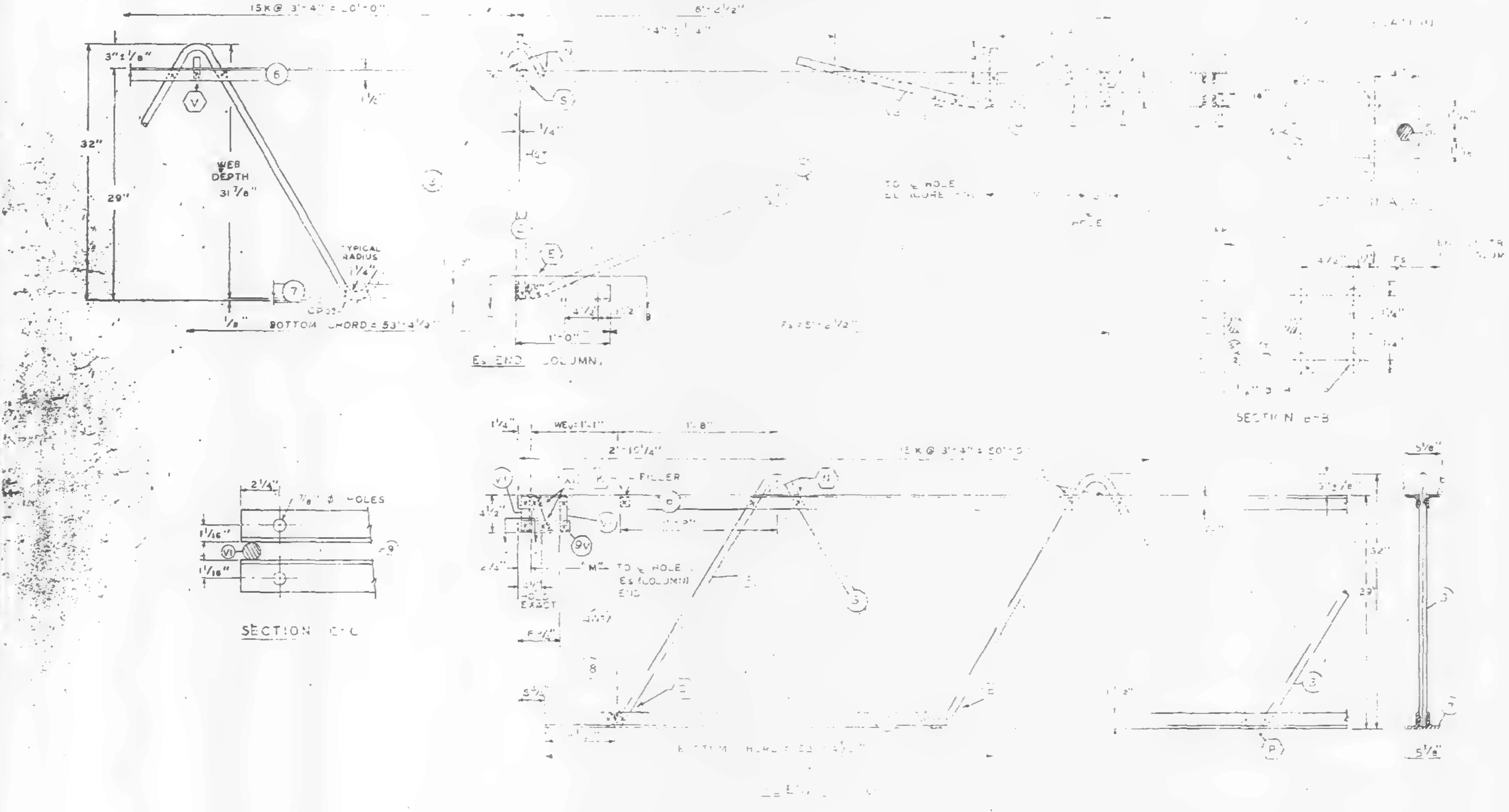
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-30
PLATE
APPROVED FOR FABRICATION BY ____ FOR P.O.N.Y.A. DATE
DRAWN BY: dec. DATE JAN. 23, 1969
APPROVED FOR FABRICATION BY ____ FOR FABRICATOR DATE
CHECKED BY. T.M.CHURA DATE JAN. 23, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A. CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 233


OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
FILLER REQ'D IN 10 TOP CHORD PANELS
2'-10¼"
WEv
FILLER
CAMBER AT MIDSPAN RELATED TO TOP CHORD
EL END (CORE)
BOTTOM CHORD LENGTH = 53'-4½"
Es END (COLUMN)

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 1¾" | ± 1/8" |
| DESIGN DEPTH | 2' | ± 1/4" |
| PANEL "K" | 4" | ± 1/4" |
| OVERALL LENGTH | 59'-0¾" | ± 3 [illegible] |
| WEB DEPTH | 31 7/8" | ± [illegible] 4 |

ALL PANEL POINTS RESISTANCE WELDED
ARC WELD INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ▨.
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET [illegible] FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. Rc1



[illegible] CONNECTION [illegible] TO BOTTOM CHORD [illegible] IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

Void

REF. DRWG.

| | |
|---|---|
| 7-A61-30 | 1-9-69 |
| 7-A61-52 | [illegible]-15-68 |
| 7-A64-14 | 1-3-68 |
| 7-A61-34 | 1-25-68 |
| 7-A61-53 | 7-22-68 |
| 7-A63-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | MK | TYPE STEEL | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T33-59075 | 6 | A242 | [illegible] ½ | [illegible] | 53'-[illegible]½" | A36 | 1.09 | [illegible] | [illegible] 8" | 1.09 | [illegible] | 109 | [illegible] |

COLUMN END

| Es END | TRUSS DESIGNATION | MK | TYPE STEEL | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T33-59075 | 9 | A242 | 2"[illegible] | [illegible] | 114 | [illegible] | A36 | 1.09 | [illegible] | [illegible] | 114 | [illegible] | 114 |

CHECK DIMENSION FOR TRUSS FAB
LOCATION OF TRANS TRUSS

| C | C2 | C3 | C4 | Es |
|---|---|---|---|---|
| 3'-8 ½" | 22'-10 ½" | 36'-2 ½" | 49'-6½" | 5'-2 ½" |

CORE END

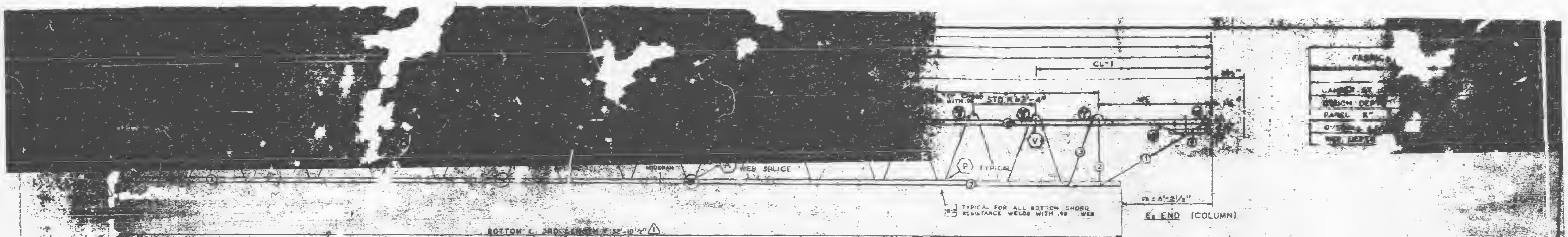
| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | WEv | DOUBLE STRUT | DOUBLE STRUT | END STIFFENER | | | WEB "WCV" | WEB "WTV" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | SIZE | LENGTH | | | TYPE STEEL | | LENGTH | | MK | TYPE STEEL | | LENGTH |
| | C32T33-59075 | 9V | A242 | 2"x[illegible] | 3'-10" | | | A242 | 114 | 4⅜" | | 8 | A24[illegible] | | 2'-6¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER — N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

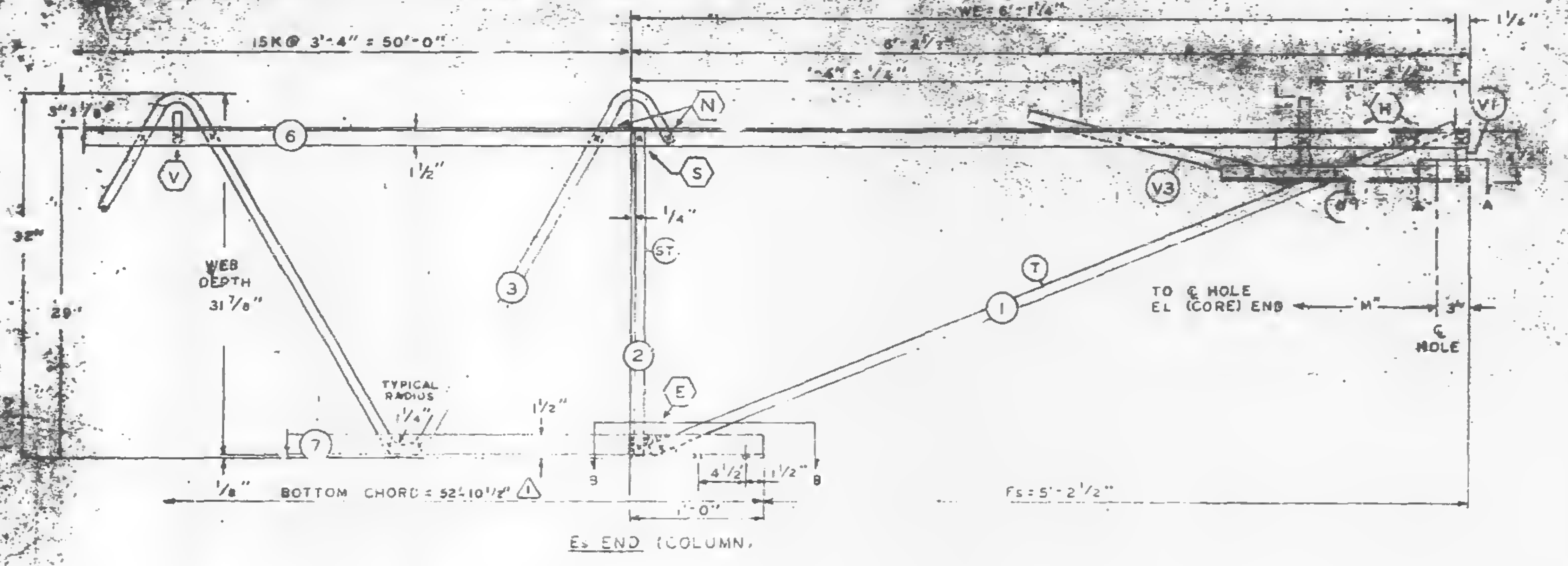
FLOOR TRUSS C32T33 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-8

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-A61-30 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY: Lee<br>DATE JAN. 23, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY. T.M.CHUPA<br>DATE JAN. 23, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY. A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 233 |

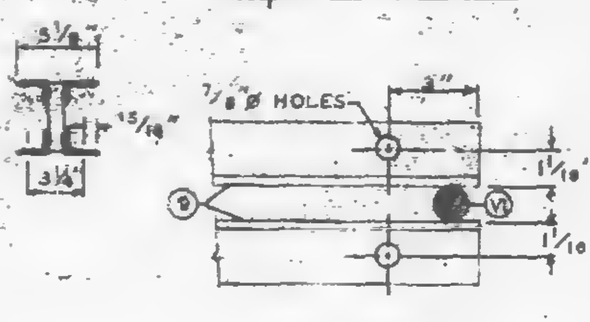

CL-1
STD K @ 3'-4"
V
P TYPICAL
A WEB SPLICE
MIDSPAN
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .98 WEB
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 52'-10½"
WEv = 6'-1¼"

Eₛ END (COLUMN)

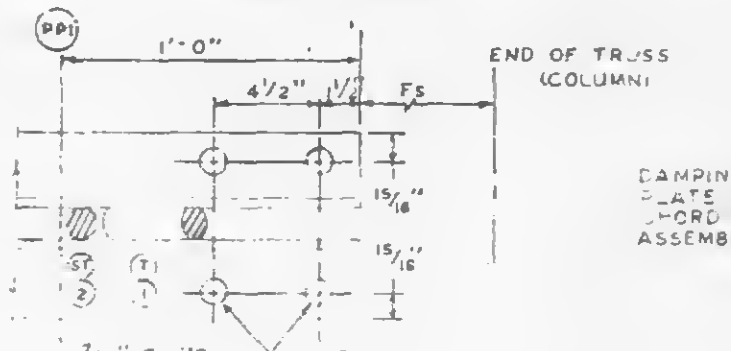


Eₛ END (COLUMN)

TRUSS ELEVATION



SECTION A-A



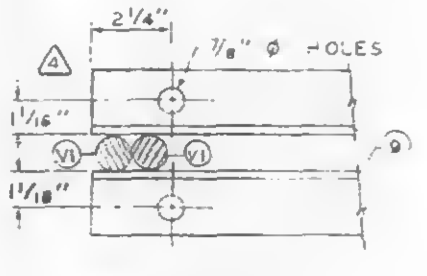
END OF TRUSS (COLUMN)

SECTION B-B

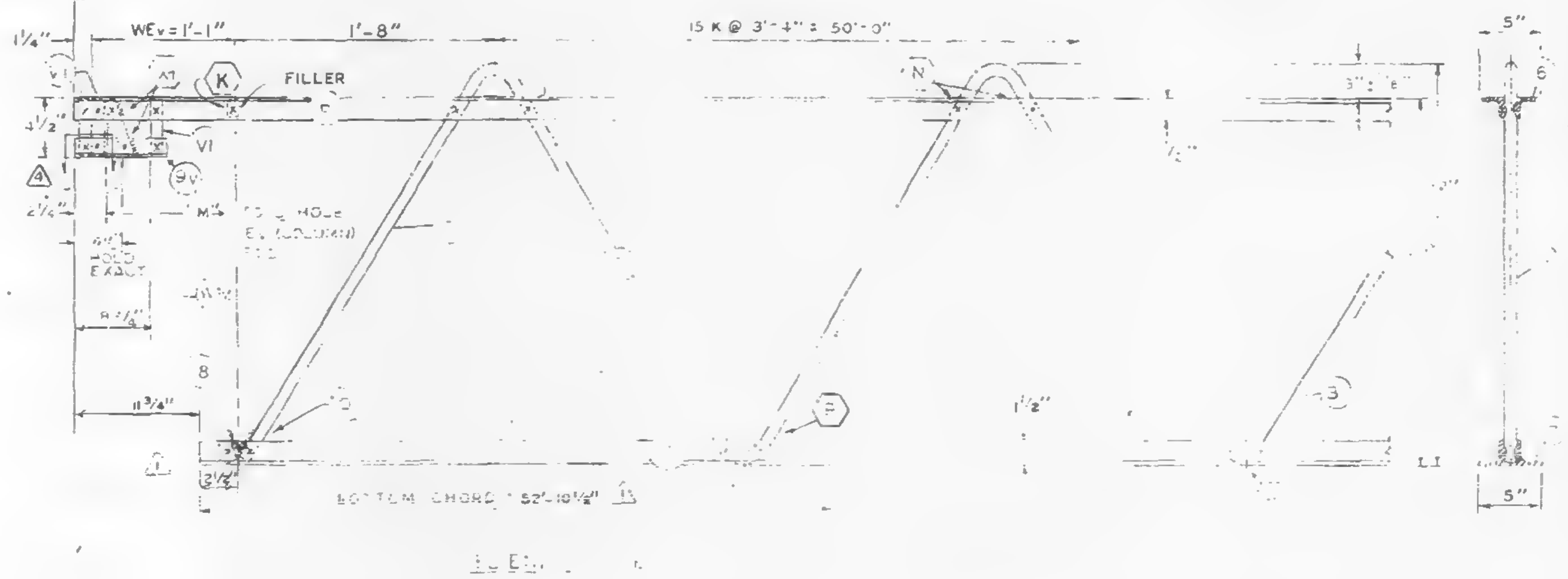
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, ST294. ④

SEE SHEET ST295 FOR VI & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie, Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ④ | 3-3-69 | END STIFFENER | D.C.C. |
| ③ | 2-28-69 | AS NOTED | G.D.C. |
| ② | 2-18-69 | AS NOTED | T.M.C. |
| ① | 1-31-69 | AS NOTED | G.D.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-31 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 10-15-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB2-70 | 11-25-66 |

PAINT

LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | MK | TYPE STEEL | SIZE | | | | | ① | | | | | | ② | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T34 - 59D75 | 6 | A242 | 2"x1½"x.25 | ½" | A242 | 2"x1½"x.25 | 52'-10½" | 3 | A242 | 98 | 97'-0" | 15½"K@3'-4" = 51'-8" | 11 | .95 | 4 | .98 | 3" | | - | | - | | |

**COLUMN END**

| Eₛ END | TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | | | | | ② | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T34-59075 | 9 | A242 | 2"x1½"x.37" ② | 6'-1¼" | | A242 | 1¼ | | | |

5'-6¾", 22'-0", 36'-2½", 44'-2½", 51'-2½"

**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLE MK | BEARING ANGLE TYPE STEEL | BEARING ANGLE CHORD SIZE | | WEv | DOUBLE STRUT | DOUBLE STRUT | END STIFFENER ④ MK. VI | | | WEB "V" | WEB "WTv" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T34-59075 | 9V | A242 | 2"x1½"x.37" ② | 10" | 1'-1" | | | A242 | .98 ② | 4³⁄₁₆" | | 8 | A242 | 1 | .98 ② | 2'-1¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER — N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

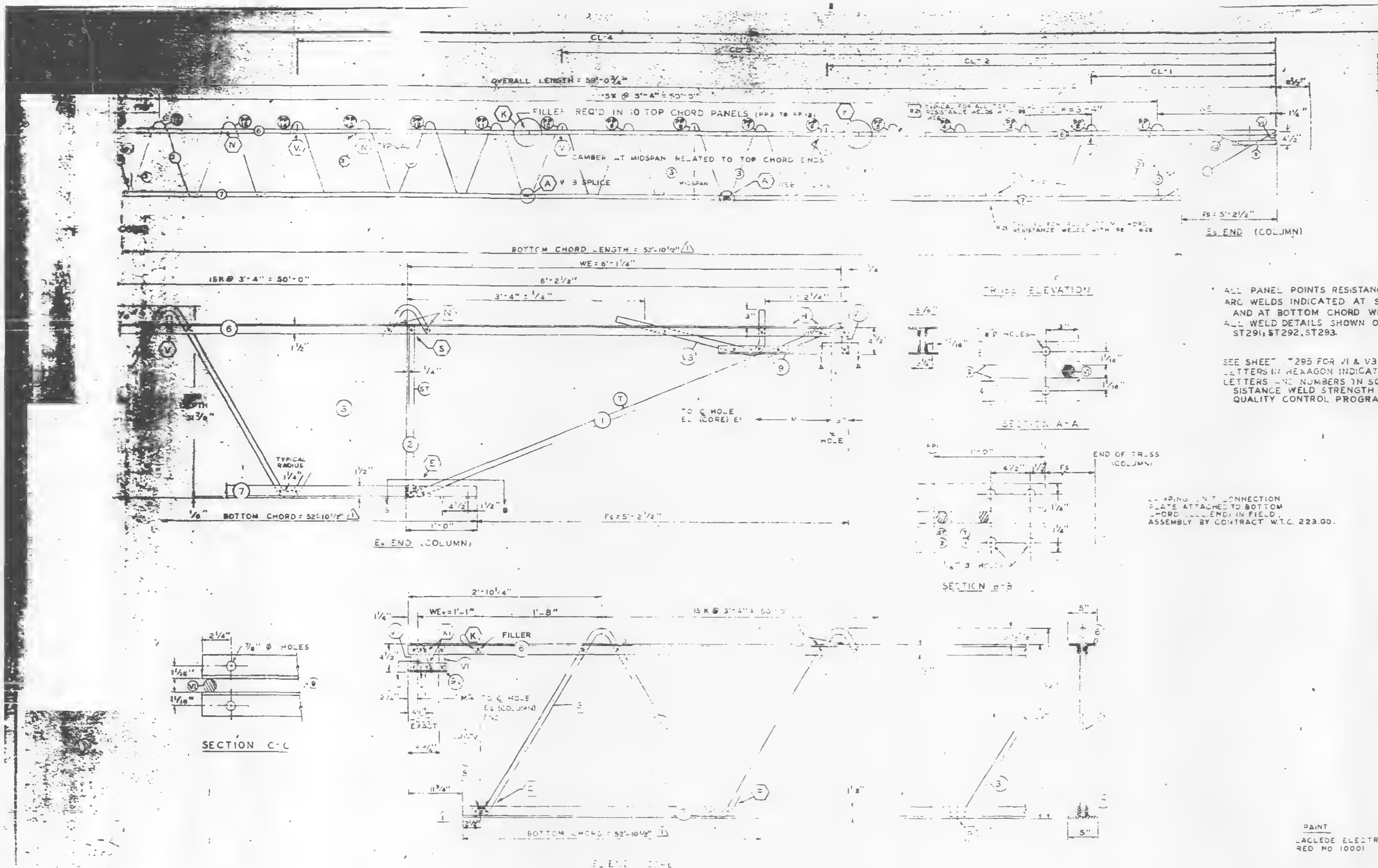
FLOOR TRUSS C32T34 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

LACLEDE STEEL COMPANY

James White 3/10/69

DESIGN DRAWING NO 7-AB1-45
DRAWN BY 
DATE JAN 23, 1969
CHECKED BY T.M. CHURA
DATE JAN 23, 1969
FABRICATION CONT NO 221
PLATE
IN CHARGE OF PROD. DEV.
SHEET NO ST 234

LACLEDE STEEL CO.



CLAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY CONTRACT W.T.C. 223.00.

- ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET ST295 FOR VI & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-6

**FABRICATION REQUIREMENTS**

| | | |
|---|---|---|
| CAMBER AT MIDSPAN | 1" | ± 3/8 |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/8" |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | E.B.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-51 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 10-15-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | | | | | | MAIN WEB | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | TYPE STEEL | SIZE | LENGTH | | TYPE STEEL | | LENGTH | | 2 | | | | LENGTH | | | |
| C32T34-59075 | 6 | A242 | 2"x1½"x.25 | [illegible] | A242 | 2"x1½"x.25 | 52'-10½" | 3 | A242 | .98 | 97'-0" | 15½"K@3'-4"=51'-8" | 11 | .98 | 4 | .98 | 3" | | - | |

| TRUSS DESIGNATION | BEARING ANGLES | | | | | | | | | | 1ST STRUT | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | |
| C32T34-59075 | 9 | A242 | 2"x1½"x.37 | 1'-10" | 6'-1¼" | | A242 | .14 | 6'-5" | - | A242 | .114 | 1'-4⅞" | A242 | .14 | 0'-4⅜" | A242 | .14 | 2'-9½ | |

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

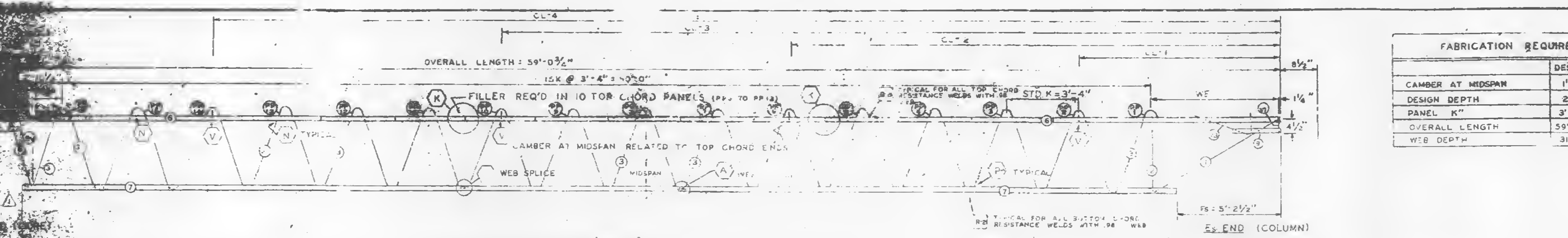
| TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | END STIFFENER MK. VI | | | WEB "WCV" | | | | WEB "W" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T34-59075 | 8V | A242 | 2"x1½"x.37 | 10" | 1'-1" | — | — | — | — | — | — | — | — | A242 | .98 | 4⅜" | — | — | — | — | 8 | A242 | 1 .98 | 2'-6½ |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER, - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T34 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-8

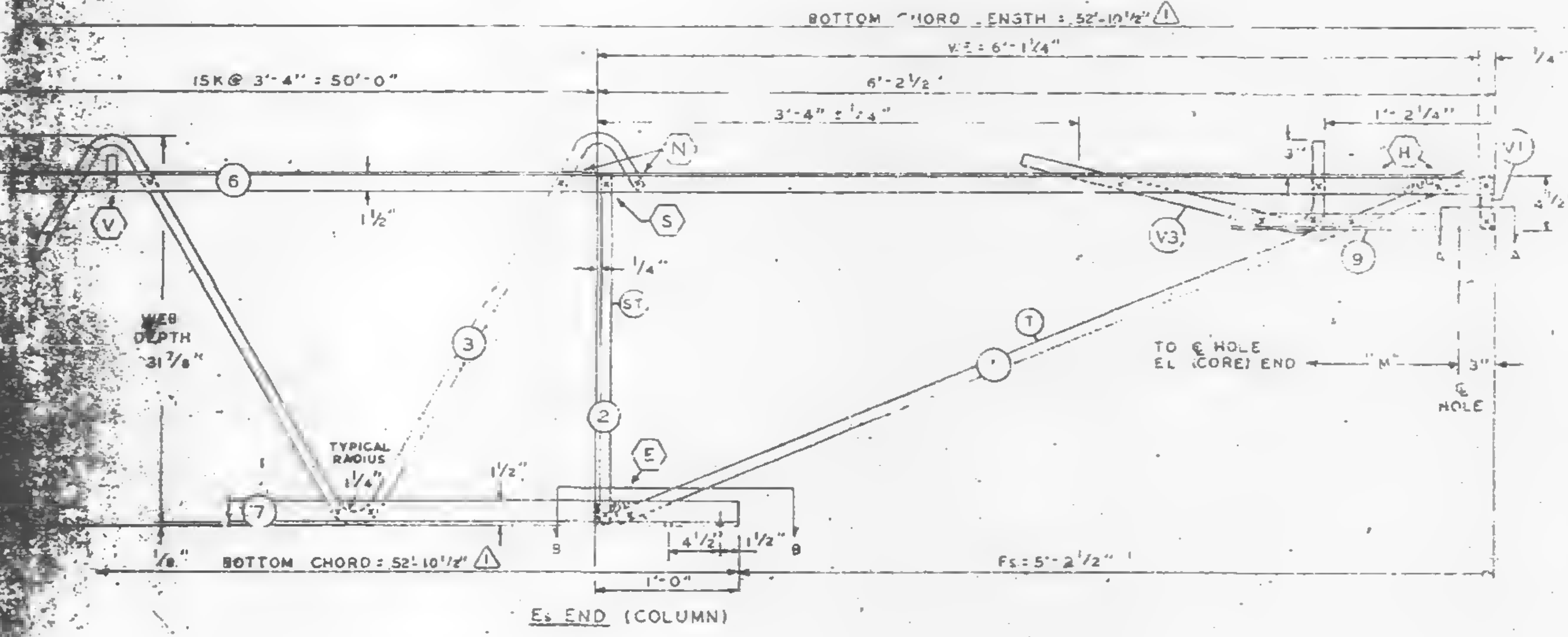
FABRICATION BY LACLEDE STEEL COMPANY

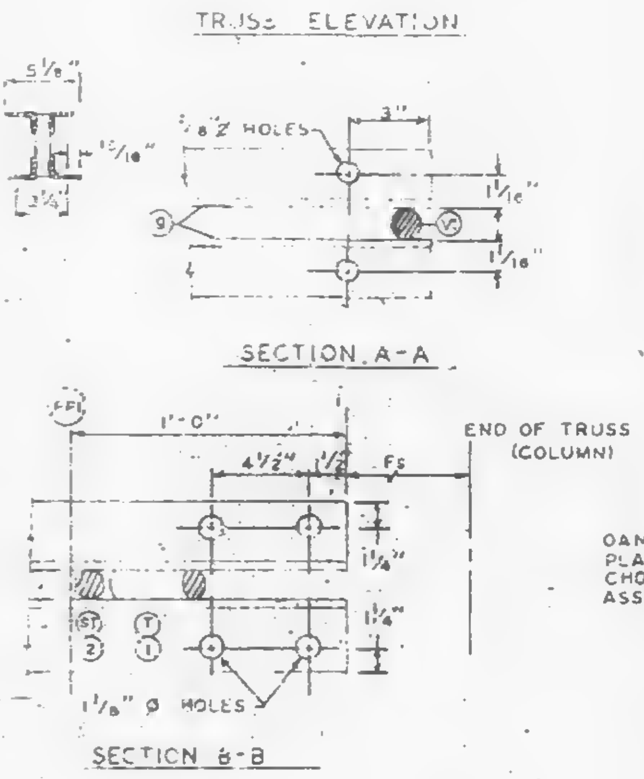
| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-AB1-45 | PLATE |
| APPROVED FOR FABRICATION James White FOR P.O.N.Y.A. DATE 2/24/69 | DRAWN BY: Jac DATE JAN. 23, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY: T.M.CHURA DATE JAN. 23, 1969 | IN CHARGE OF PROD. DEL. |
| DETAILED BY A CARL WEBER | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST234 |


OVERALL LENGTH = 59'-0¾"
15K @ 3'-4" = 50'-0"
CL-4
CL-3
CL-2
CL-1
FILLER REQ'D IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH .98
STD K = 3'-4"
WE
8¼"
1¼"
4½"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
TYPICAL
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH .98 WEB
Fs = 5'-2½"
Es END (COLUMN)

## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1$\frac{15}{16}$" | ± 3/8 |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL K" | 3'-4" | - 1/8" |
| OVERALL LENGTH | 59'- | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |

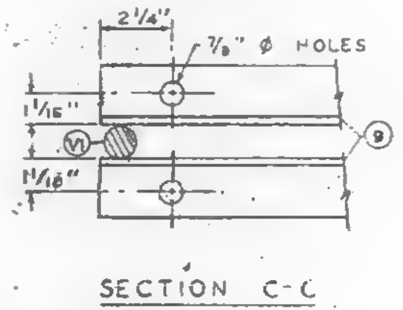




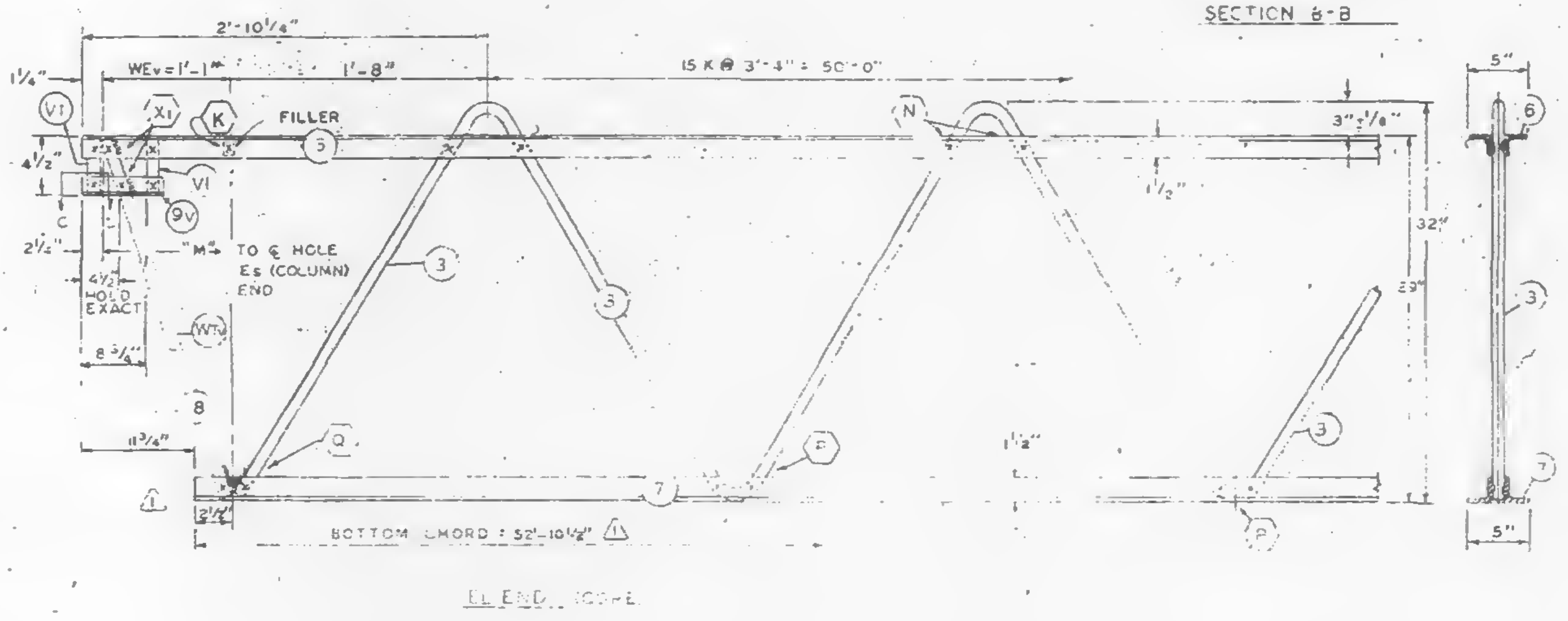
ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (xxxxx)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET ST295 FOR VI & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., $\boxed{R-6}$

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



Parts of sheet ~~do~~ not print Please clarify

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| ⚠1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-31 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 10-15-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD | | | | MAIN WEB | | | | | [illegible] | | [illegible] | | | [illegible] | | | | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | ⚠1 [illegible] | MK | TYPE STEEL | DIA | LENGTH | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | LENGTH | MK | TYPE STEEL | [illegible] | [illegible] | [illegible] |
| C32T34-59075 | 6 | A242 | 2"x1½"x.25 | 59'-0¾" | [illegible] | A242 | 2"x1½"x.25 | 52'-10½" | 3 | A242 | .98 | 97'-0" | 15½"K@3'-4"=51'-8" | 10 | .98 | 4 | .98 | 3" | — | — | — | [illegible] | [illegible] |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLE | | | | WE | [illegible] | | | | [illegible] STRUT | | | | [illegible] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | |
| | [illegible] | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T34-59075 | 9 | A242 | 2"x1½"x.25 | [illegible]-10" | 6'-1¼" | [illegible] | A242 | [illegible] | [illegible] | [illegible] | [illegible] | .98 | [illegible] | A242 | 1.14 | 0'-4⅜" | A242 | [illegible] | [illegible] |

| TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | MK. VI | | | | | | | | | | | | |
| [illegible] | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | PCS | [illegible] | LENGTH | MK | TYPE STEEL | [illegible] | [illegible] | LENGTH |
| C32T34-59075 | 9V | A242 | 2"x1½"x.31 | 10" | 1'-1" | | | | | — | — | — | — | A242 | 1.14 | 4⅜" | — | — | — | — | — | 6 | A242 | [illegible] | 1.14 | 2'-6¼" |

CHECK DIMENSION FOR TRUSS FAB

LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

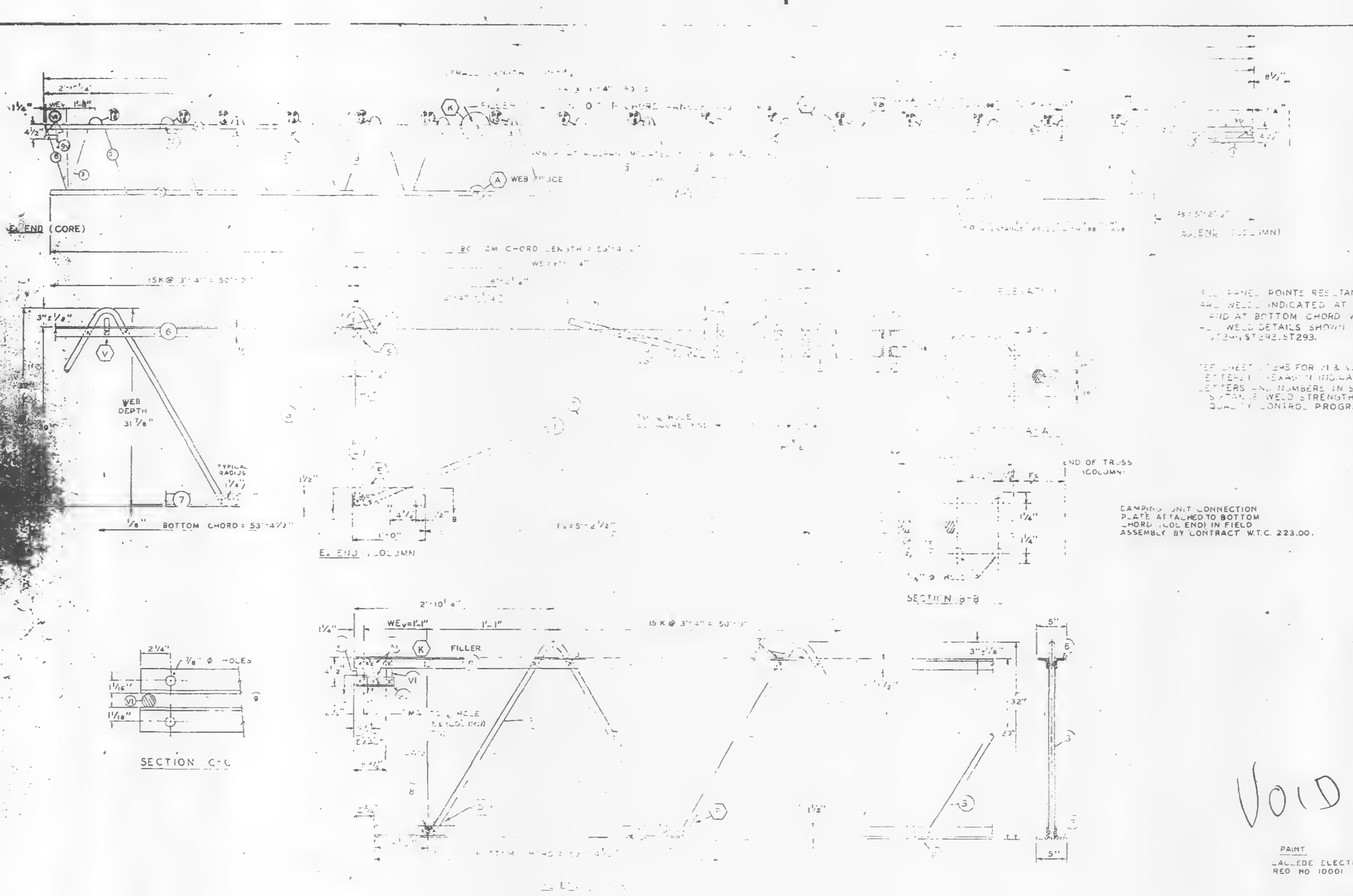
X 2/19/69 SC

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T34 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-8

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, [illegible] | | DESIGN DRAWING NO. 7-AB1-45 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY: dec DATE JAN. 23, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR | DATE | CHECKED BY. T.M.CHURA DATE JAN. 23, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST234 |



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 1 15/16" | ± 3/8" |
| DESIGN DEPTH | | ± 1/4" |
| PANEL "K" | 4" | ± 1/4" |
| OVERALL LENGTH | 59'-0 3/4" | ± 1/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELD INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (////)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

REF SHEET ST245 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-6

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL END) IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

VOID

REF. DRWG.

| | |
|---|---|
| 7-AB1-31 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 10-15-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | [illegible]-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO 10001

| TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T34-59075 | 6 | A242 | 2"x1 1/2"x.25 | [illegible] | A242 | 2"x1 1/2"x.25 | 53'-4 1/2" | 3 | A242 | .98 | 97'-0" | 15 1/2"K@3'-4"=51'-8" | 10 | .98 | 4 | .98 | 3" | | |

**COLUMN END**

| ES END | TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | |
|---|---|---|---|---|---|
| | C32T34-59075 | 9 | A242 | 2"x1 1/2"x[illegible] | [illegible] |

**CORE END**

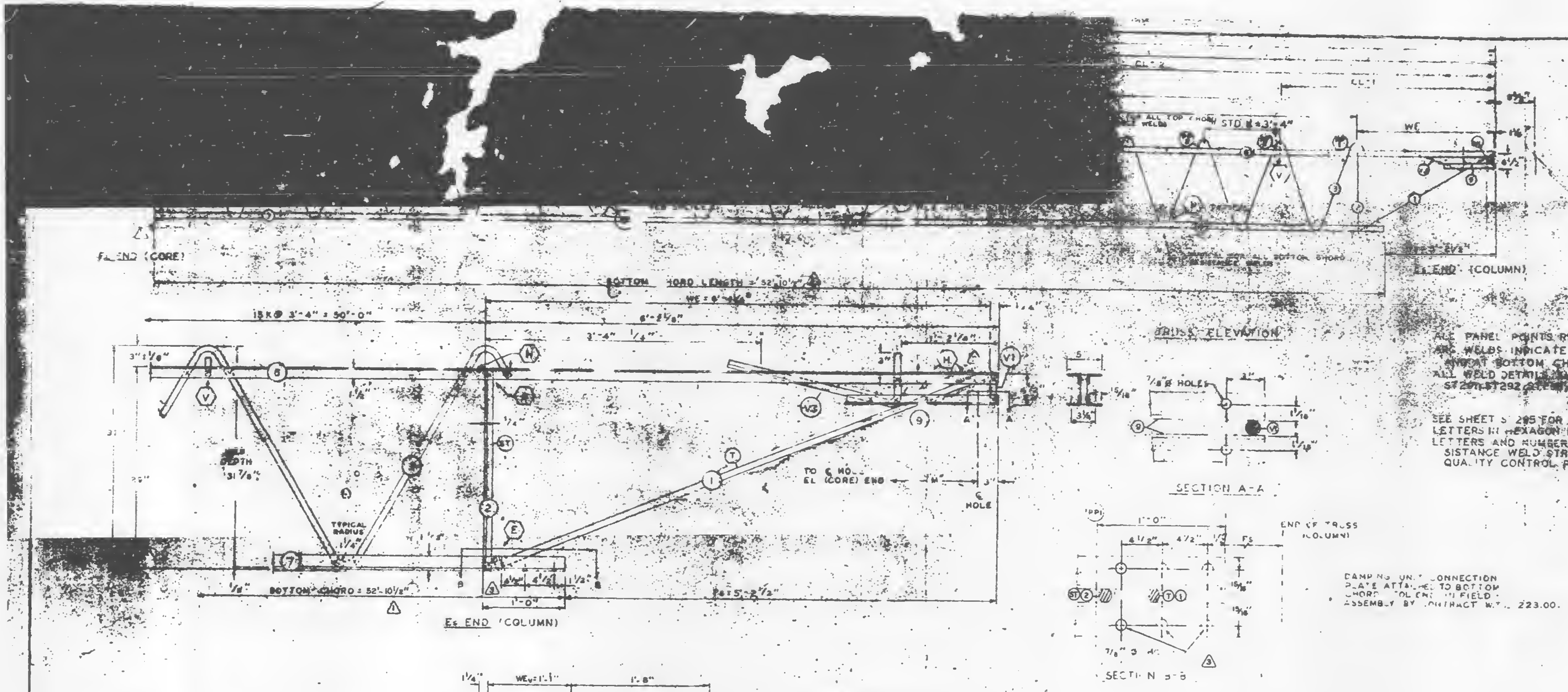
| EL END | TRUSS DESIGNATION | MK | TYPE STEEL | BEARING ANGLE SIZE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | C32T34-59075 | 9V | A242 | 2"x1 1/2"x.31 | 10 | A242 | .14 | 4 7/8" | A242 .14 2" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T34 59'-0 3/4" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

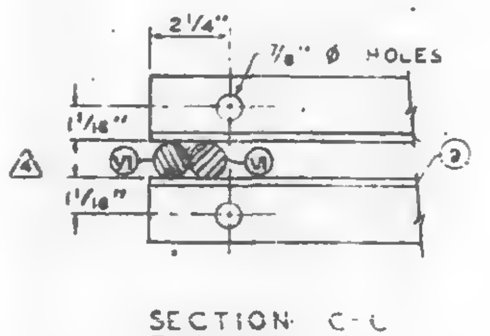
| | | |
|---|---|---|
| FABRICATED AT [illegible] | DESIGN DRAWING NO. 7-AB1-45 | PLATE |
| APPROVED FOR FABRICATION DATE | DRAWN BY dec<br>DATE JAN. 23, 1969 | |
| APPROVED FOR FABRICATION DATE<br>FOR FABRICATOR | CHECKED BY T.M.CHURA<br>DATE JAN. 23, 1969 | IN CHARGE OF PROD. DEV. |
| [illegible] BY CARL WEBER | FABRICATION CONT NO W.T.C. 221 | SHEET NO ST 234 |

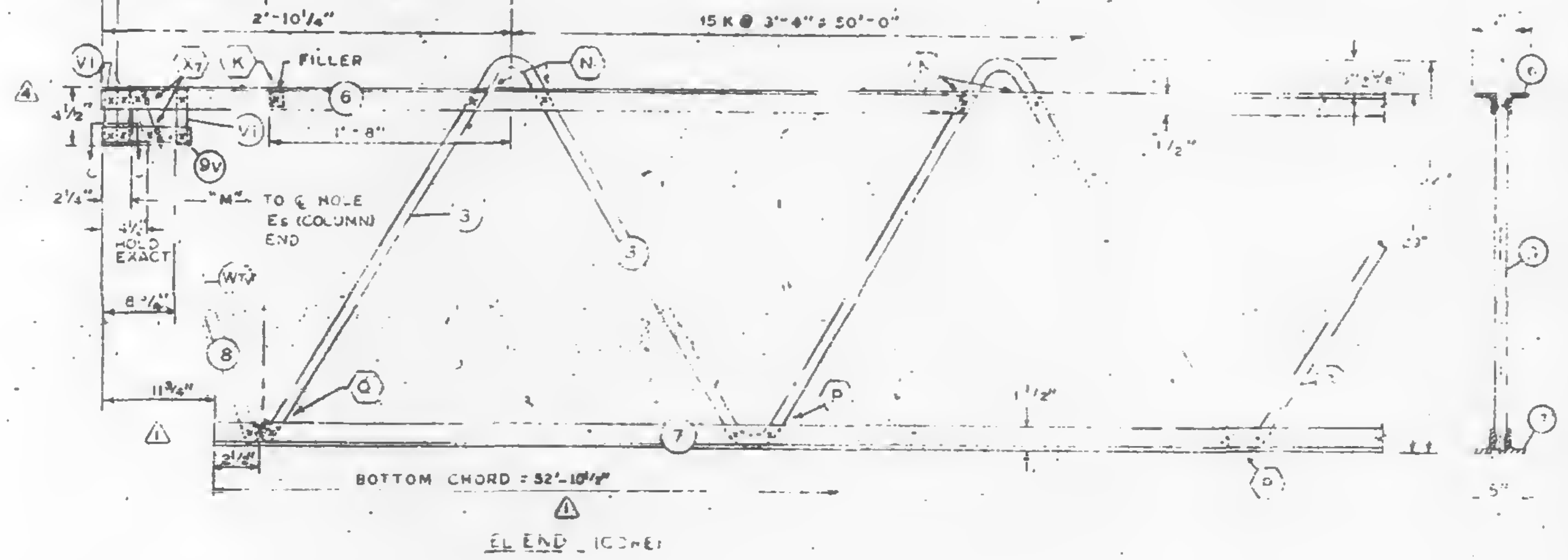


ALL PANEL POINTS RESISTANCE WELDED
ARC WELDS INDICATED AT SHADED
AND AT BOTTOM CHORD, WEB S
ALL WELD DETAILS SHOWN ON
ST291-ST292 [illegible] ST29

SEE SHEET ST 295 FOR VI & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS
LETTERS AND NUMBERS IN SQUARES INDICATE RE-
SISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, I.e., R21

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD TOL. ONLY IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.





|  |  |  |  |
|---|---|---|---|
| △4 | 3-3-69 | END STIFFENER | D.C. |
| △3 | 2-28-69 | AS NOTED | G.D. |
| △2 | 2-18-69 | AS NOTED | T.M. |
| △1 | 1-31-69 | AS NOTED | G.D. |
| NO. | DATE | REVISION | BY |

REF DRWG.

| | |
|---|---|
| 7-ABI-48 | 1-6-69 |
| 7-ABI-52 | 2-18-69 |
| 7-ABI-14 | 1-[illegible]-69 |
| 7-ABI-54 | 1-6-69 |
| 7-ABI-58 | 7-[illegible]-68 |
| 7-ABI-[illegible] | [illegible] |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | [illegible] FILLER | | | | | HINGE PLATE | | | | "M" ℄ HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH △1 | MK | TYPE STEEL | DIA | LENGTH | NO. OF P | MK | DIA | MK | DIA | LENGTH | MK | TYPE STEEL | [illegible] | LENGTH | |
| C32T35 - 58075 | 6 | A242 | 2"x1½"x.25" | 59'-0¾" | 7 | A242 | 2"x1½"x.25" | 52'-10½" | 3 | A242 | .98 | 97'-0" | 15½ K@3'-4" = 51'-8" | 11 | .98 | 4 | .98 | 0'-3" | — | — | — | — | 58'-[illegible]½" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS [illegible] | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

**COLUMN END**

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL STRUT △2 | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. 7 | | | MK. V3 | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | | DIA | LENGTH |
| | C32T35 58075 | 9 | A242 | 2"x1½"x.37" △2 | 1'-10" | 6'-1¼" | 1 | A242 | .98 | 6'-4" | 2 | A242 | .98 | 2'-4⅞" | A242 | .98 | 0'-[illegible]⅞" | A[illegible] | | 2'-9½" |

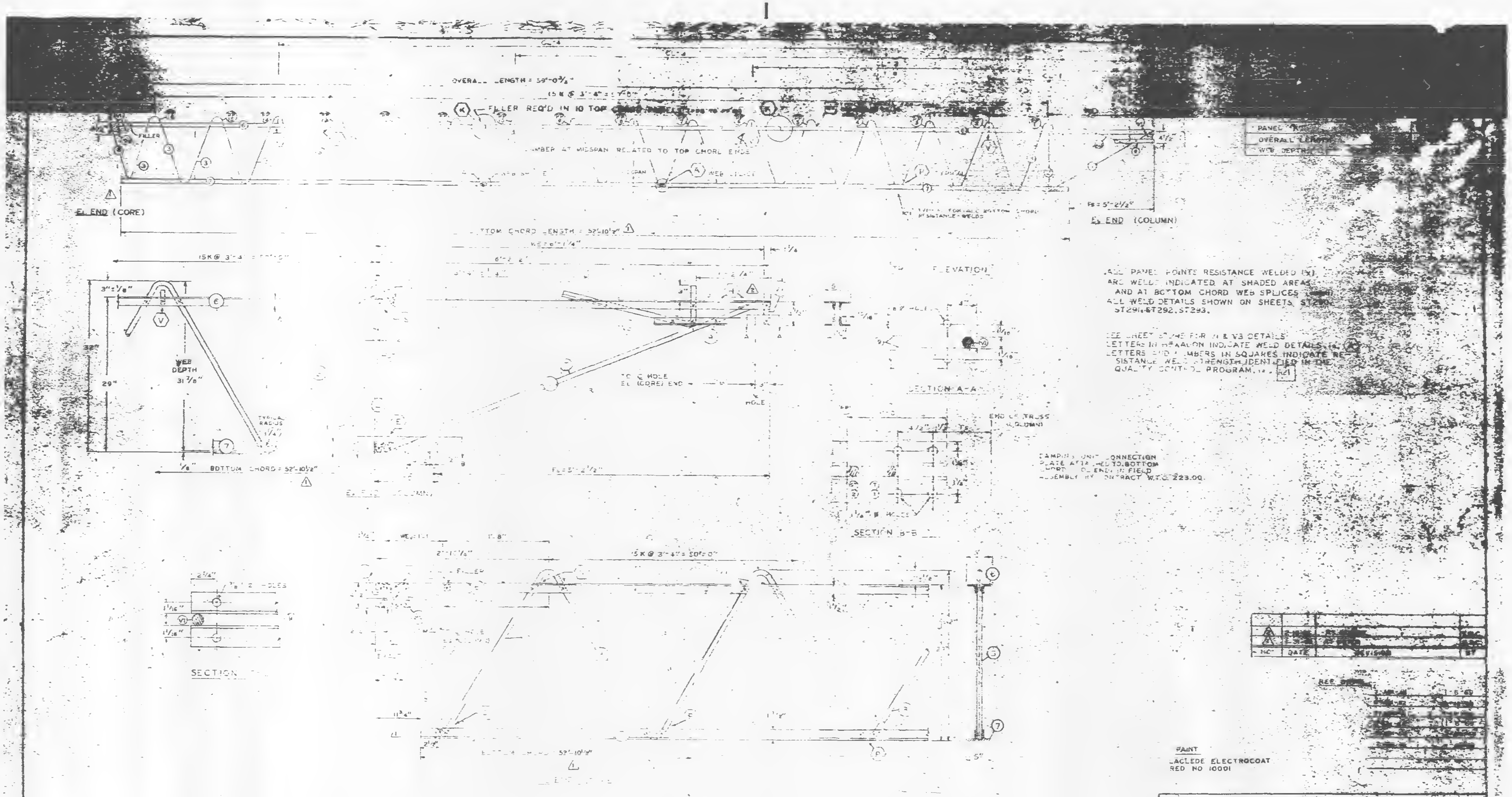
**CORE END**

| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER △4 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. VI | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH 3 REQ'D | MK | TYPE STEEL | | CS | LENGTH | MK | TYPE STEEL | | DIA | LENGTH |
| | C32T35 - 58075 | W | A242 | 2"x1½"x.37" △2 | 0'-10" | 1'-1" | — | — | — | — | — | — | — | — | A242 | .98 | 4⅞" | — | — | — | — | — | 8 | A242 | | .98 | 2'-8¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER – N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T35 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATED BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING N 7-ABI-48
PLATE
APPROVED FOR FABRICATION FOR P.N.Y.A. James White DATE 3/13/69
DRAWN BY [illegible]
DATE JAN 22, 1969
APPROVED FOR FABRICATION DATE
BY FOR FABRICATION
CHECKED BY T.M. CHURA
DATE JAN 22, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY [illegible]
FABRICATION CONT. NO. A.T.C. 221
SHEET NO. ST 295



ALL PANEL POINTS RESISTANCE WELDED (X).
ARC WELD INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET ST296 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, I.E. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, I.E. R21

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD END IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

PAINT

LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| C32T35 - 59075 | 6 | A242 | 3" x 1 1/2" | 52'-10 1/2" | A242 | .98 | 5'-8 | .98 | .98 | 1'-3" |

| COLUMN END | TRUSS DESIGNATION | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | C32T35 - 59075 | 9 | A242 | 2" x 2" x .37" | .98 | 4 | .98 | 9 1/2" |

| CORE END | TRUSS DESIGNATION | BEARING ANGLE | | | END STIFFENER | | | WEB "W" | WEB "V" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T35 - 59075 | 9V | A242 | 2" x 1 1/2" x .37" 0'-10" | A242 | .98 | 4 3/8" | — | 8 | A242 | .98 | 2'-6 1/4" |

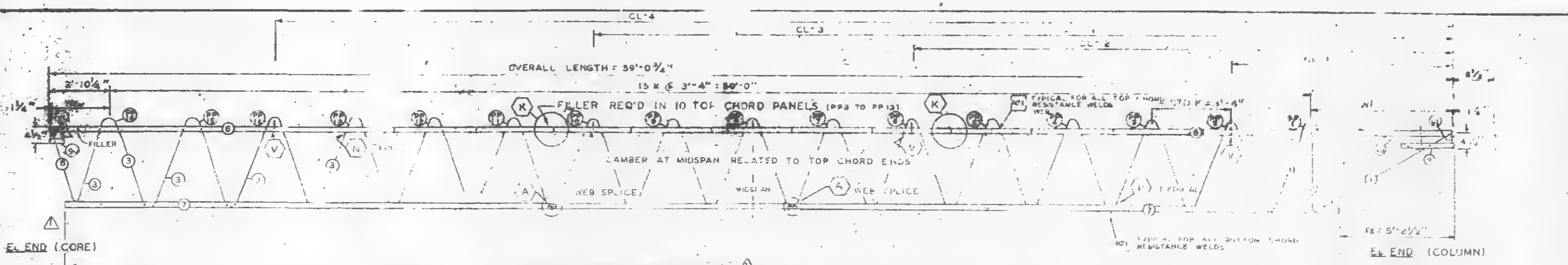
CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| ℄-1 | ℄-2 | ℄-3 | ℄-4 | FE |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-5 1/2" | 5'-2 1/2" |

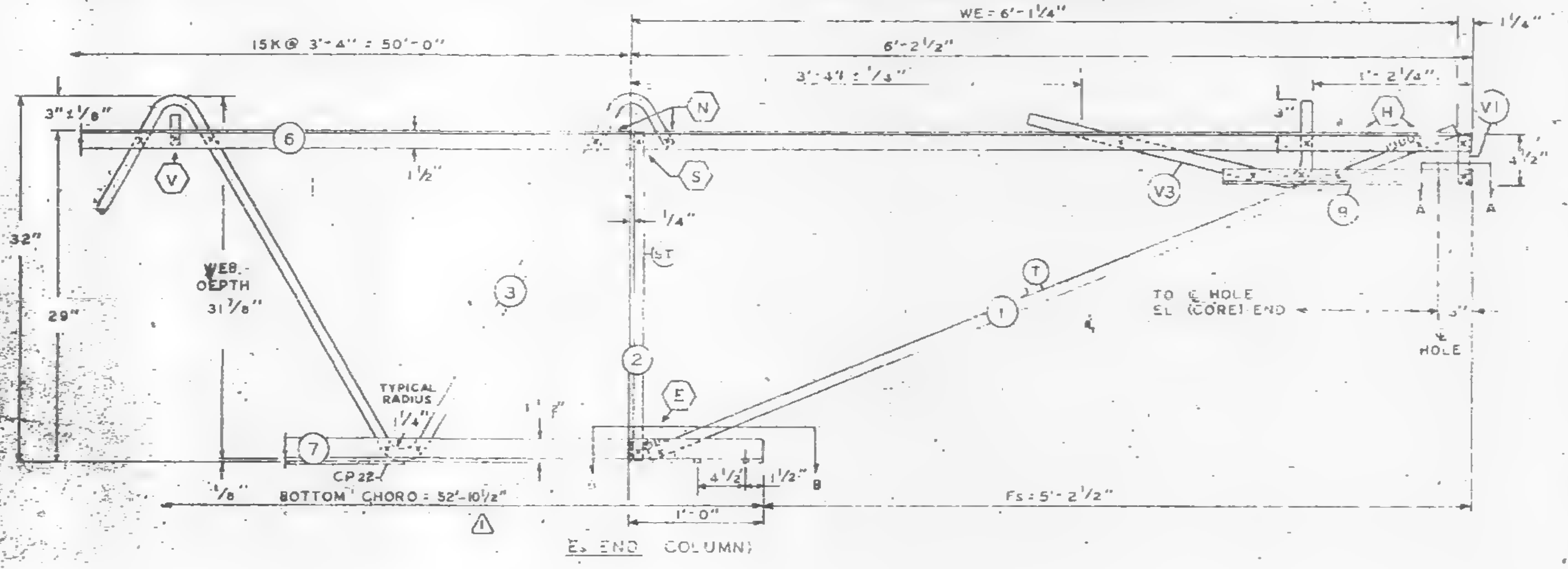
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

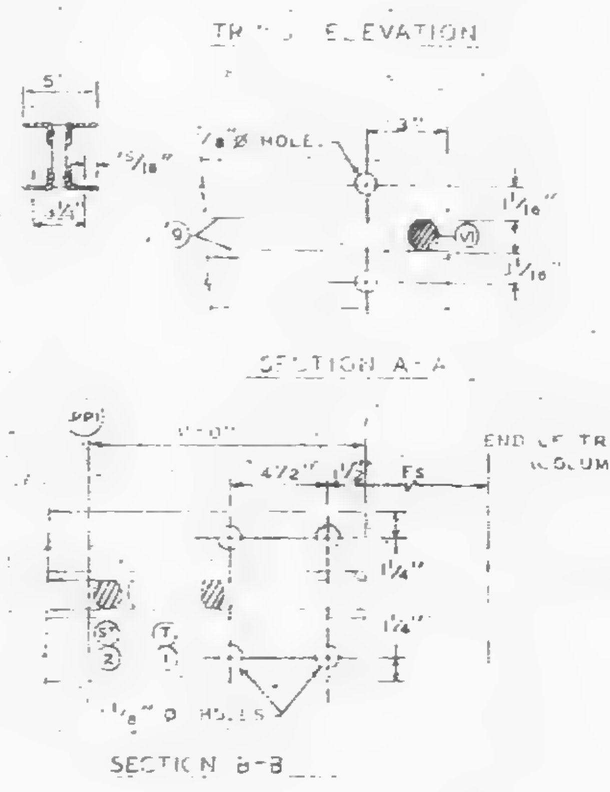
FLOOR TRUSS C32T35 59'-0 3/4" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
APPROVED FOR FABRICATION BY
DETAILED BY [redacted]


CL-4
CL-3
CL-2
OVERALL LENGTH = 59'-0¾"
15 K @ 3'-4" = 50'-0"
2'-10¼"
FILLER REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLER
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
E₂ END (CORE)
Fs = 5'-2½"
E₂ END (COLUMN)
BOTTOM CHORD LENGTH = 52'-10½"

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | ¾" | ± [illegible] |
| DESIGN DEPTH | 29" | ± 1/[illegible] |
| PANEL "K" | 3' | ± [illegible] |
| OVERALL LENGTH | 5[illegible] ¾" | ± 3/8 |
| WEB DEPTH | 31 ⅛" | ± 1[illegible] |

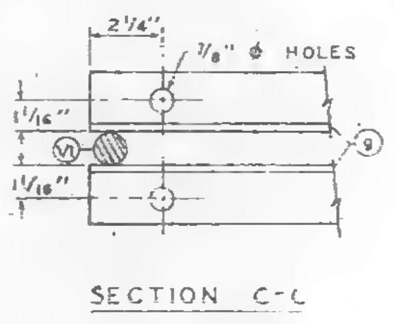


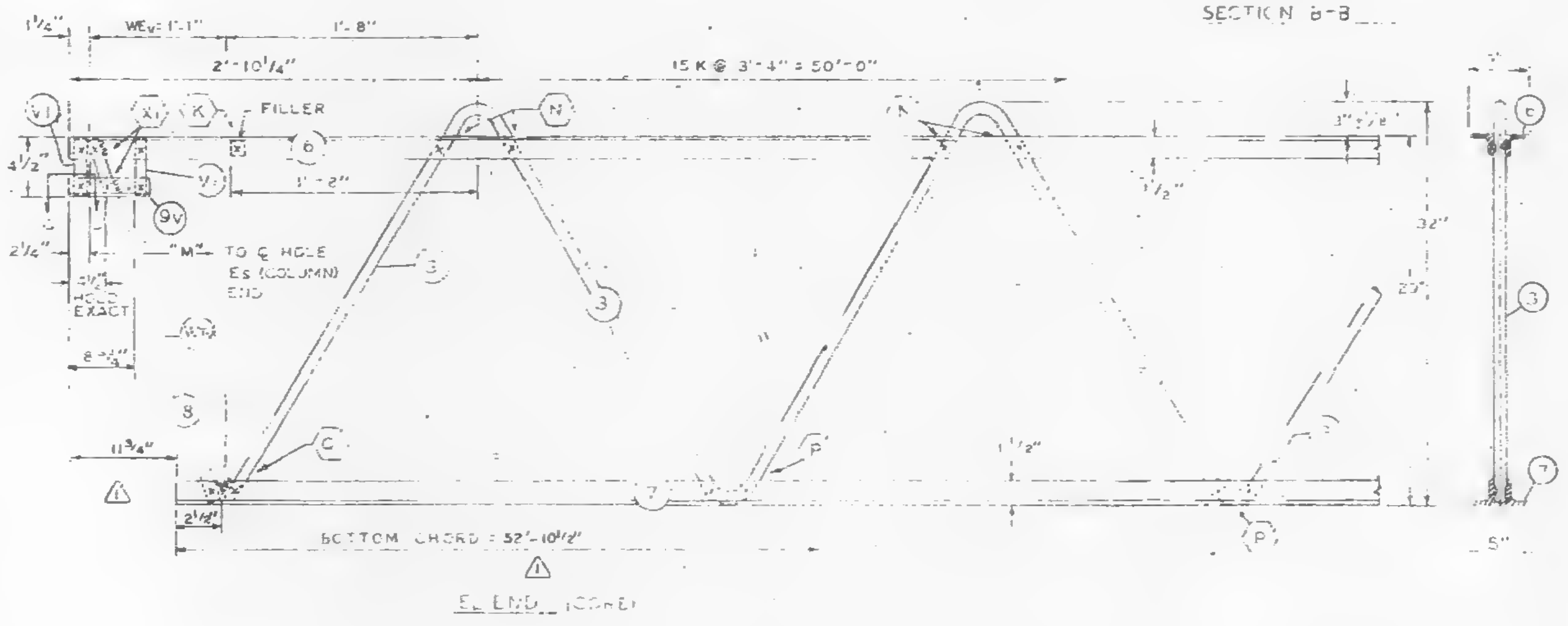


ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES [illegible]
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293.

SEE SHEET [illegible] FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE
QUALITY CONTROL PROGRAM, ie. [R21]

DAMP [illegible] CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD [illegible] IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.





Parts of sheet do not print - Please clarify

| | | | |
|---|---|---|---|
| | | | |
| | | | |
| ⚠1 | 1-31-69 | AS NOTED | G.D.C. |
| NO | DATE | REVISION | BY |

REF DRWG.

| | |
|---|---|
| 7-481-48 | 1-6-69 |
| 7-481-52 | 2-15-68 |
| 7-484-14 | 1-3-68 |
| 7-481-54 | 1-6-69 |
| 7-481-53 | 7-22-68 |
| 7-483-70 | 11-29-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES ⚠1 | | | | MAIN WEB "A" | | | | | FILLER | | CONNECTION FILLER | | | [illegible] PLATE | | | | 14" [illegible] HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF P | NO. | DIA | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T35-59075 | 6 | A242 | 2"x1½"x.25" | 59'-0¾" | 7 | A242 | 2"x1½"x.25" | 52'-10½" | 3 | A242 | .98 | 97'-0" | 15½ P @ 3'-4" = 51'-8" | 11 | .98 | 4 | .98 | 0'-3" | — | — | — | — | 58'-7½" |

COLUMN END

| E₂ END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL [illegible] STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH |
| | C32T35 59075 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | 1 | A242 | .99 | 6'-5" | 2 | A242 | .98 | [illegible]'-4⅞" | A242 | .98 | 0'-4⅜" | A242 | .98 | 2'-9½" |

| TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH |
| [illegible]35-59075 | 9V | A242 | 2"x1½"x.25 | 0'-10" | 1'-1" | | | - | - | — | —— | — | —— | A242 | .98 | 4⅜" | — | —— | — | — | —— | 8 | A242 | 1 | .98 | 2'-6¼" |

CHECK DIMENSION FOR TRUSS FAB

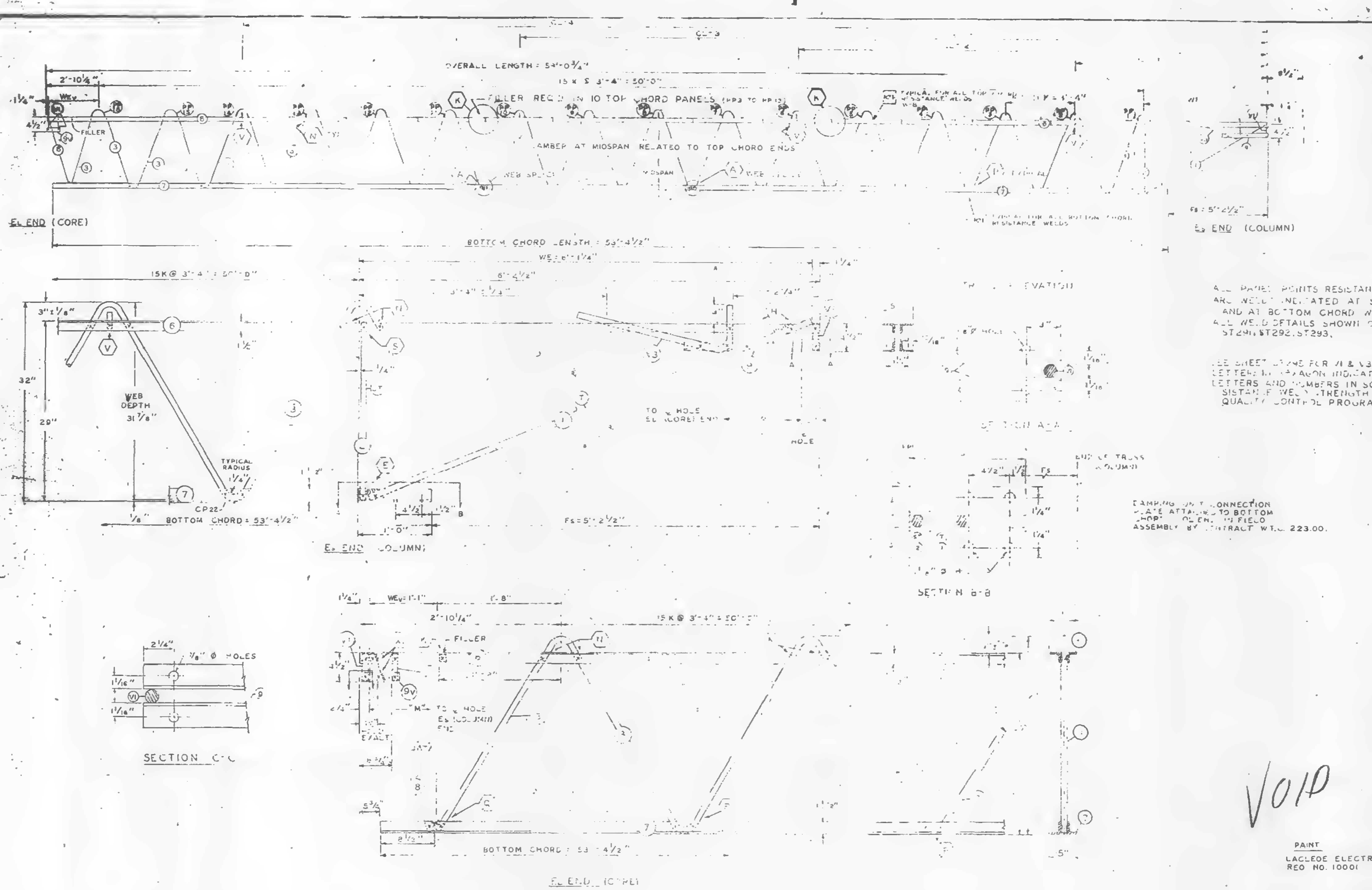
| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-8½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

SKILLING-HELLE
CHRISTIANSEN-ROBERTSON
Structural & Civil Engineers
X
2/19/69 SK

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T35 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-481-48
PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY: [illegible]
DATE JAN. 22, 1969.
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.N. CHURA
DATE JAN. 22, 1969.
IN CHARGE OF PROD. DEV.
DETAILED BY. A CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 235



| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | ¾" | ± 3/8" |
| DESIGN DEPTH | 29 | ± 3/4" |
| PANEL "K" | [illegible] | ± 1/4" |
| OVERALL LENGTH | 59'-0¾" | ± 3/[illegible] |
| WEB DEPTH | 31 7/8" | ± 1/4 |

ALL PANEL POINTS RESISTANCE WELDED AT ARC WELD INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293.

SEE SHEET [illegible] FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [hc1]

CLAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD OF ENDS IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

| N. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

VOID

REF DRWG.

| | |
|---|---|
| 7-AB1-48 | 1-6-69 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-AB1-54 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES MK | TOP CHORD TYPE STEEL | TOP CHORD CHORD SIZE | TOP CHORD LENGTH | BOTTOM CHORD TWO ANGLES MK | BOTTOM CHORD TYPE STEEL | BOTTOM CHORD CHORD SIZE | BOTTOM CHORD LENGTH | MAIN WEB "A" MK | MAIN WEB TYPE STEEL | MAIN WEB DIA | MAIN WEB LENGTH | NO. OF K | [illegible] | [illegible] DIA | CONNECTION FILLER NO | CONNECTION FILLER DIA | CONNECTION FILLER LENGTH | [illegible] MK | TYPE STEEL | SIZE | LENGTH | ⅞" Ø HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T35-59075 | 6 | A242 | 2"x1½"x.25" | 59'-0¾" | | A242 | 2"x1½"x.25" | 53'-4½" | 1 | A242 | .98 | 97'-0" | 15½K@3'-4" = 51'-8" | 11 | .98 | 4 | .98 | 0'-3" | — | --- | - | - | 58'-[illegible]½" |

| ℄ COLUMN END TRUSS DESIGNATION | BEARING ANGLES MK | BEARING ANGLES TYPE STEEL | BEARING ANGLES CHORD SIZE | BEARING ANGLES LENGTH | WE | [illegible] STRUT MK | TYPE STEEL | DIA | LENGTH | VERTICAL "ST" STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | END STIFFENER MK V3 TYPE STEEL | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T35 59075 | 9 | A242 | 2"x1½"x.25 | 1'-10" | 6'-1¼" | 1 | A242 | .98 | 6'-5" | 2 | A242 | .98 | 2'-4⅞" | A242 | .98 | 0'-4⅜" | A | 98 | 2'-9½" |

CHECK DIMENSION FOR TRUSS FAB

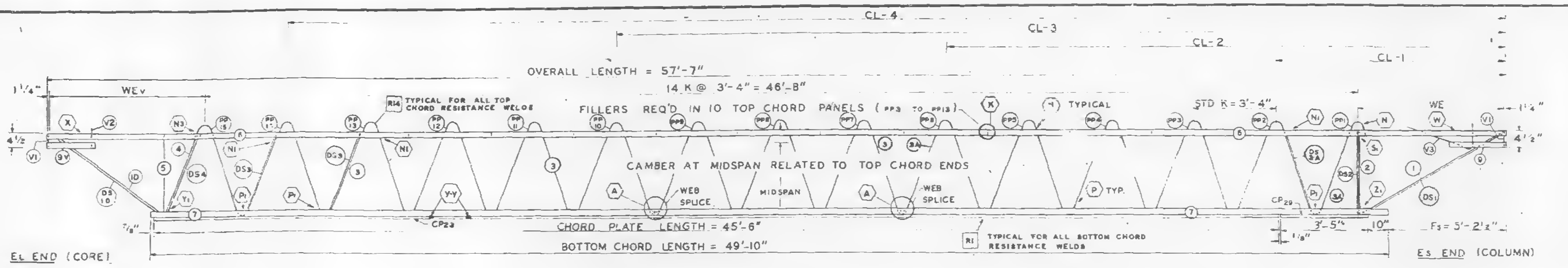
| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| ℄ CORE END TRUSS DESIGNATION | BEARING ANGLE MK | BEARING ANGLE TYPE STEEL | BEARING ANGLE CHORD SIZE | BEARING ANGLE LENGTH | WEB | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | END STIFFENER MK V1 TYPE STEEL | DIA | LENGTH | WEB "WCV" MK | TYPE STEEL | PCS | DIA | LENGTH | WEB "WTV" MK | TYPE STEEL | PCS | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T35-59075 | 9V | A242 | 2"x1½"x.25 | 0'-10" | 1'-1" | | | | | — | — | — | — | A242 | .98 | 4⅜" | — | — | — | — | — | 8 | A242 | 1 | .98 | 2'-8¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T35 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

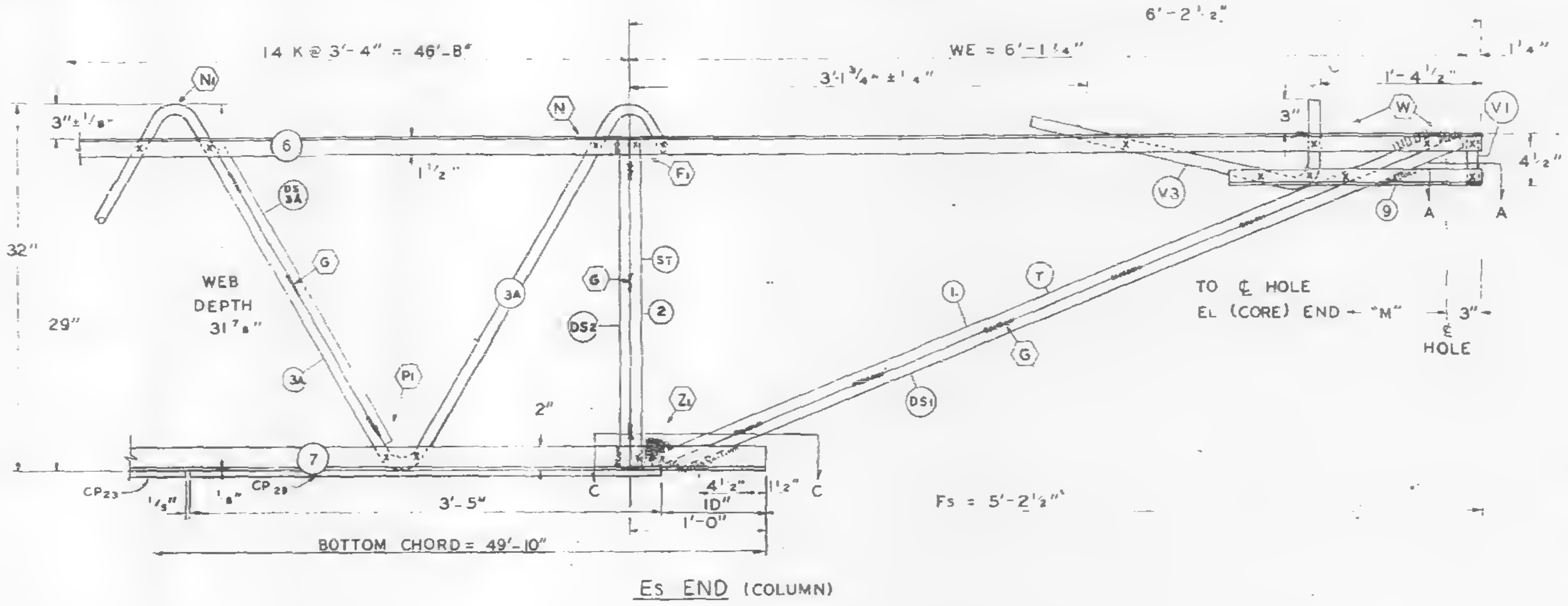
FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-48
PLATE
APPROVED FOR FABRICATION BY ______ FOR P.O.N.Y.A. DATE
DRAWN BY: Jac
DATE JAN. 22, 1969
APPROVED FOR FABRICATION BY ______ FOR FABRICATOR DATE
CHECKED BY: T.M.CHURA
DATE JAN. 22, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY A CARL WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST 235


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
WEv
R14 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
(K) TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP.
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP23
CP29
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

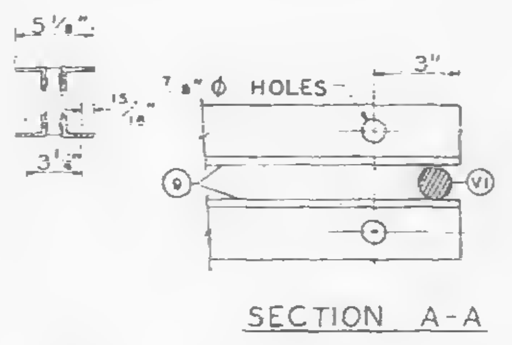
## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

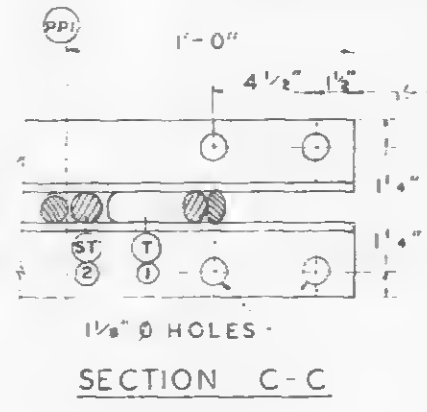
ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTON CHORD, WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie., R1



## Es END (COLUMN)



## SECTION A-A

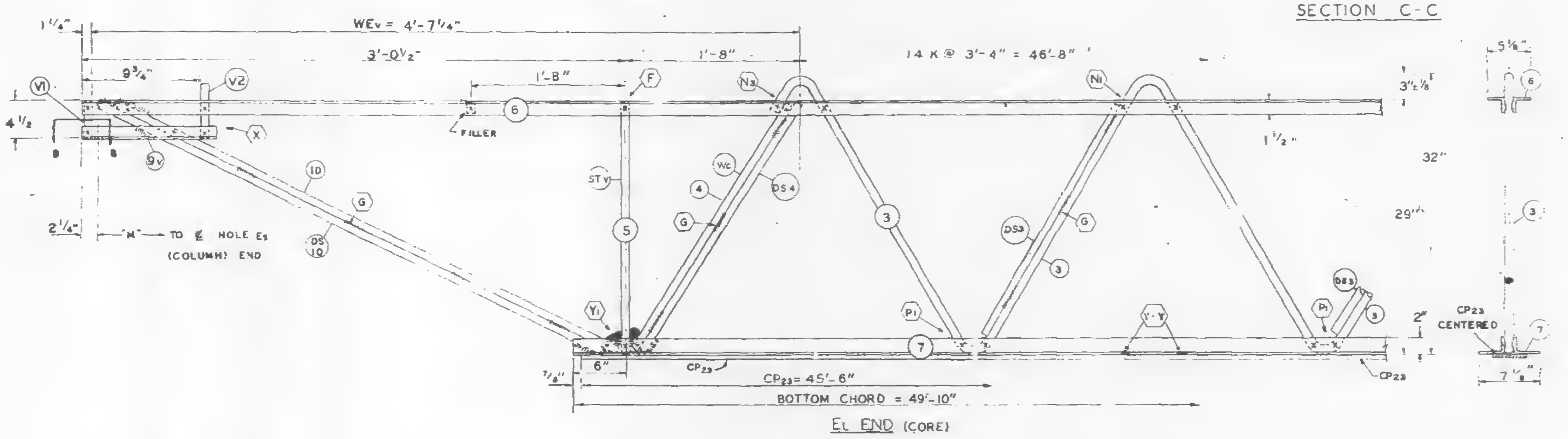


END OF TRUSS (COLUMN)

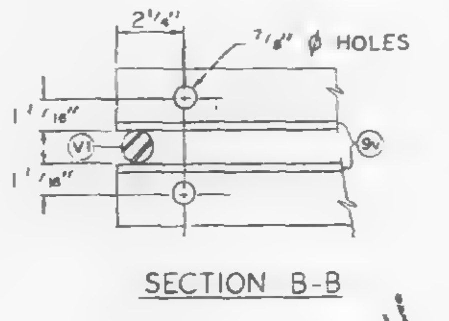
Fs

## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.



## EL END (CORE)



## SECTION B-B

VOID

SKILLING - HELLE - CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
☐ APPROVED
☐ APPROVED AS NOTED
RESUBMIT
REJECTED
Date 6/4/69 By SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

| REF DRWG. | |
|---|---|
| 7-AB1-32 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

Truss length not reqd

PAINT
LACLEDE ELECTRDCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTN | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH |
| C32T36P 577 | 6 | A242 | 2"x1½"x.31" | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 58'-4 3/4"<br>34'-6 1/2 | 8 1/2 K @ 3'-4" = 28'-4"<br>5 1/2 K @ 3'-4" = 18'-4" | 11 | 1.14 | 57'-1¾" | – | – | — | CP 23 | A36 | 4½"x.39 | 45'-6" | DS2 | A242 | .75 | 2'-4 7/8" | CP 29 | A36 | 4½"x.39" | 3'-5" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T36P-577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | .92 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| DOUBLE STRUT | | | |
|---|---|---|---|
| MK | TYPE STEEL | DIA | LENGTH |
| DS 3A | A242 | .75 | 2'-6¾" |

CORE END

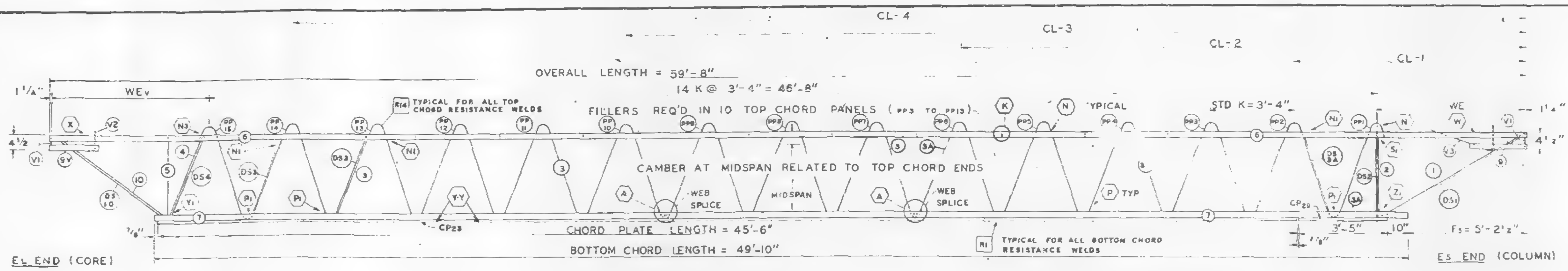
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) (REQD) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T36P-577 | 9 | A242 | 2"x1½"x.37 | 11¾" | 4'-7¼" | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | | | | 4 | A242 | 1 | 1.14 | 2'- | DS4 | A242 | .92 | 2'-9½" | DS10 | A242 | .75 | 3'-7" | DS3 | A242 | .92 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T36P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

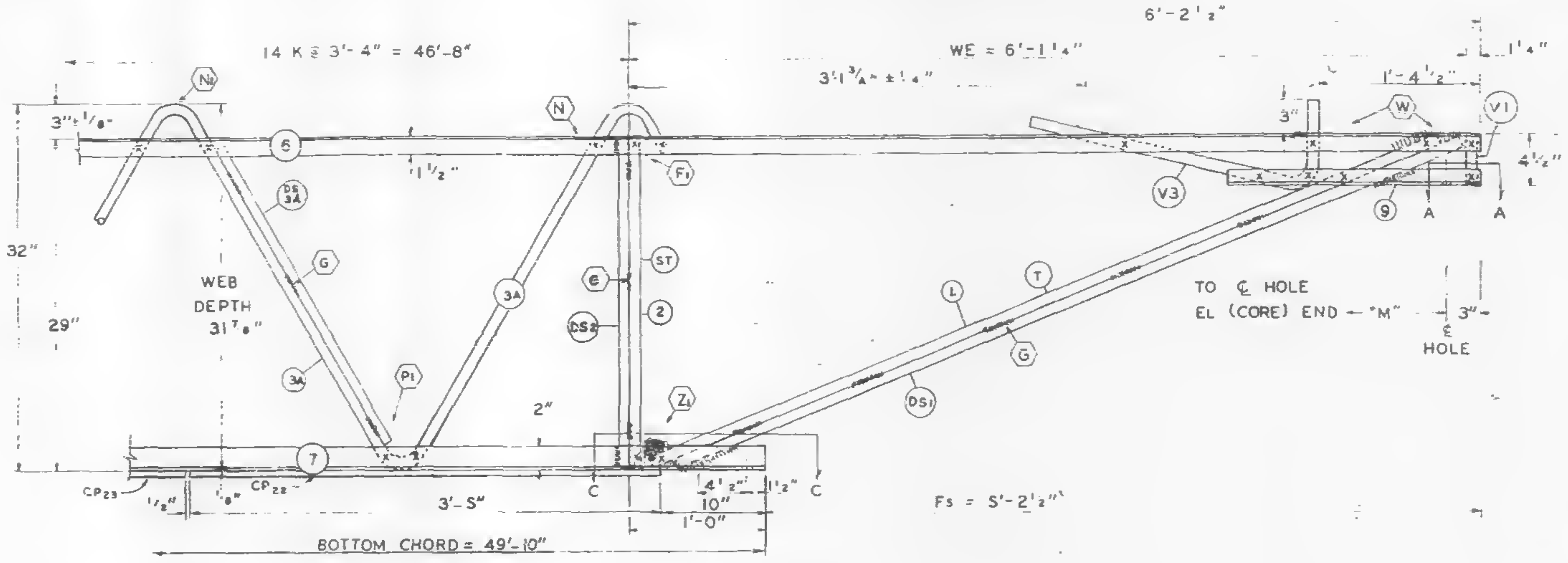
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-32 PLATE
APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. DATE ______
DRAWN BY: [illegible]
DATE: MAY 6, 1969
APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR DATE ______
CHECKED BY: T. [illegible] IN CHARGE OF [illegible] DEV.
DATE: MAY 6, 1969
DETAILED BY: [redacted]
FABRICATION CONTRACT W.T.C. 221
SHEET NO. ST23[illegible]P


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
R14 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
TYPICAL
WEv
WE
1 1/4"
4 1/2"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
CP23
CP29
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
3'-5"
10"
Fs = 5'-2 1/2"
EL END (CORE)
Es END (COLUMN)

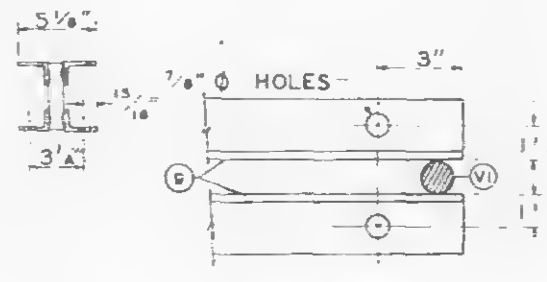
## TRUSS ELEVATION

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R1

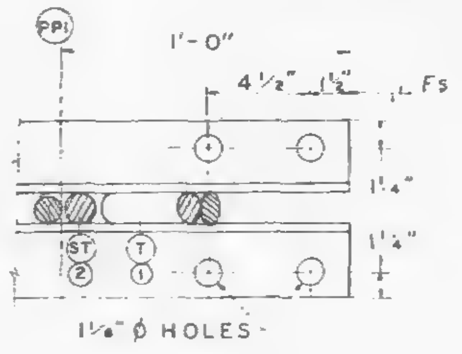


## Es END (COLUMN)



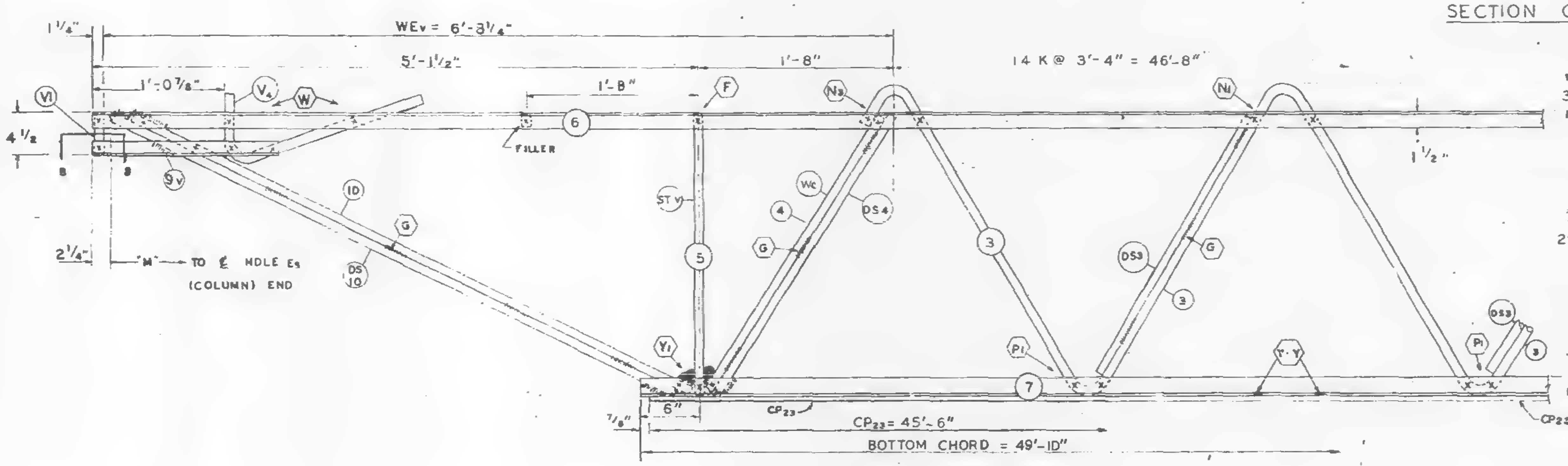
## SECTION A-A

END OF TRUSS (COLUMN)

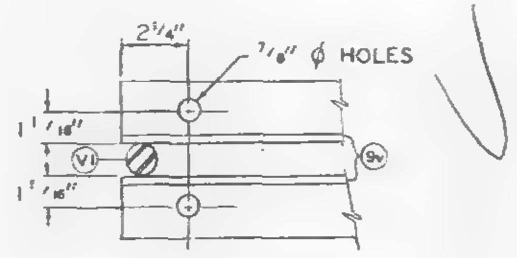


## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS



## EL END (CORE)



## SECTION B-B

VOID

Truss length not reqd

SKILLING, HELLE, CHRISTIANSEN, ROBERTSON
Structural & Civil Engineers
APPROVED
☐ APPROVED AS NOTED
6/4/69 BY SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

REF DRWG.

| | |
|---|---|
| 7-AB1-32 | 1-6-69 |
| 7-AB4-30 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

**PAINT**
LACLEDE ELECTROCOAT
REQ NO. 10001

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T36C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO.: 7-AB1-32 PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
DRAWN BY: DATE: MAY 6, 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE.
LACLEDE STEEL CO.
CHECKED BY: IN CHARGE OF PROD. DEV. DATE: MAY 6, 1969
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221 SHEET NO. ST236C

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T36C 598 | 6 | A242 | 2"x1½"x.31" | 59'-8" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 33'-4 3/4"<br>34'-8 1/2 | 8 1/2 K @ 3'-4" = 28'-4"<br>5 1/2 K @ 3'-4" = 18'-4" | 11 | 1.14 | 59'-2 3/4" | – | – | — | CP22 | A36 | 4½"x.39 | 45'-6" | DS2 | A242 | .75 | 2'-4 7/8" | CP29 | A36 | 4½"x.39" | 3'-5" |

COLUMN END

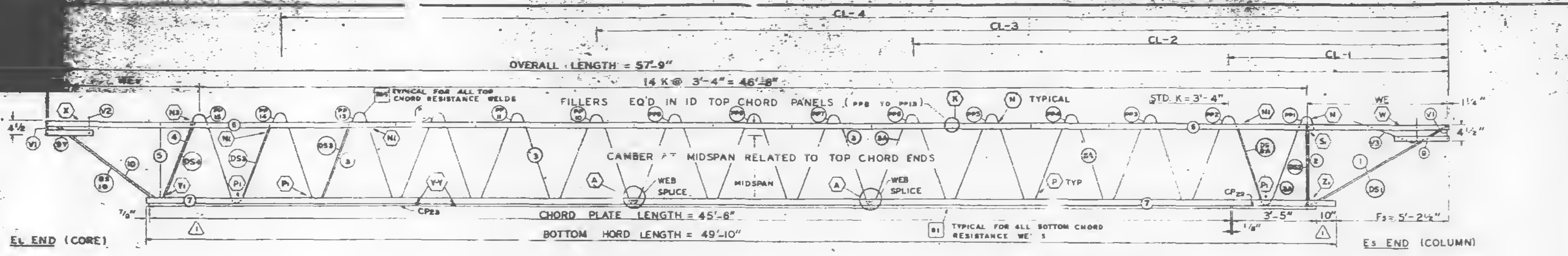
| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T36C 598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3 1/8" | 2 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 92 | 6'-3 1/8" |

| CHECK DIMENSION FOR TRUSS FAB. | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 5'-2 1/2" |

| DOUBLE STRUT | | | |
|---|---|---|---|
| MK | TYPE STEEL | DIA | LENGTH |
| DS3A | A242 | .75 | 2'-6 3/4" |

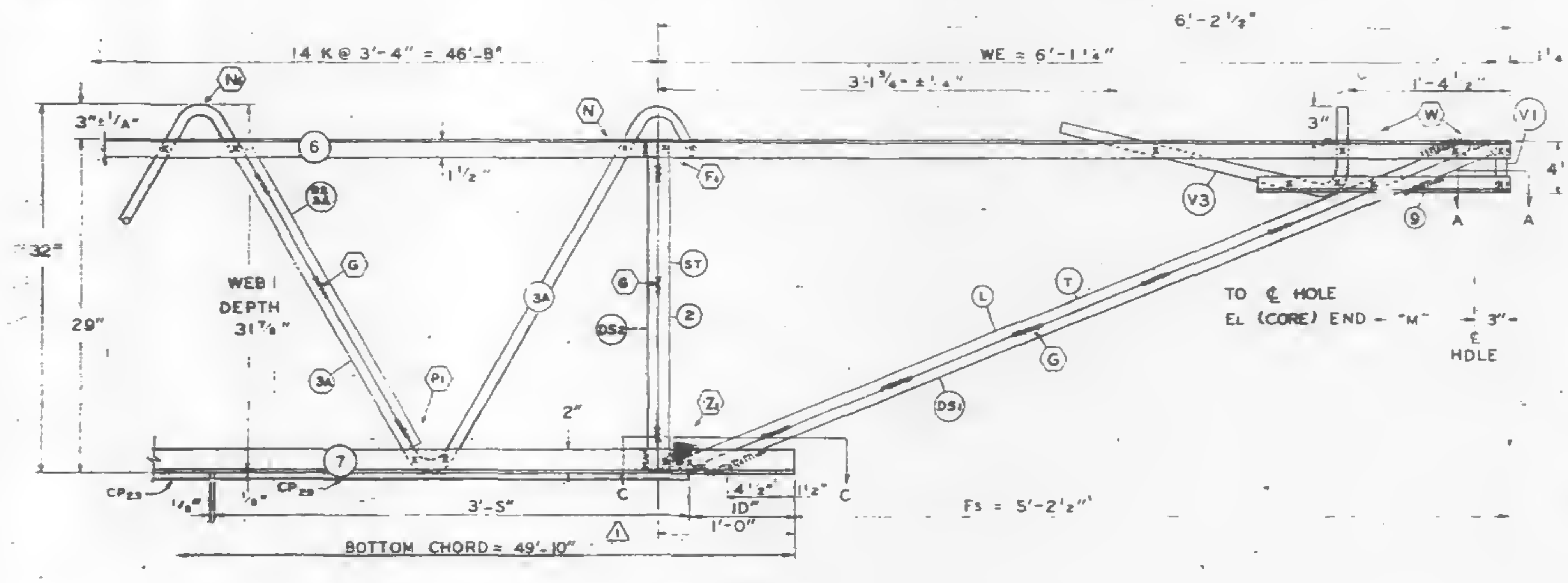
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | DOUBLE STRUT | | | | (2) DOUB (REQD) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DI | LENGTH |
| | C32T36C 598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8 1/4" | 10 | A242 | 1.14 | 5'-4½" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8" | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'-9 | A242 | 92 | 2'-9½" | DS10 | A242 | 75 | 5'-4¼" | DS3 | A242 | 92 | 2'-6¾" |

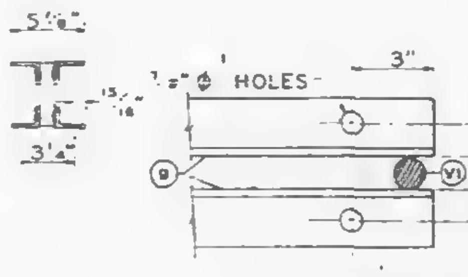

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEV
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN ID TOP CHORD PANELS (PP8 TO PP18)
TYPICAL
STD K = 3'-4"
WE
1¼"
4½"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP
CP23
CP29
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
3'-5"
10"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

| FABRICATION REQUIREMENTS | [illegible] | [illegible] |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | [illegible] |
| DESIGN DEPTH | 29" | 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-9" | ± 3/[illegible]" |
| WEB DEPTH | 31 7/8" | ± [illegible]" |

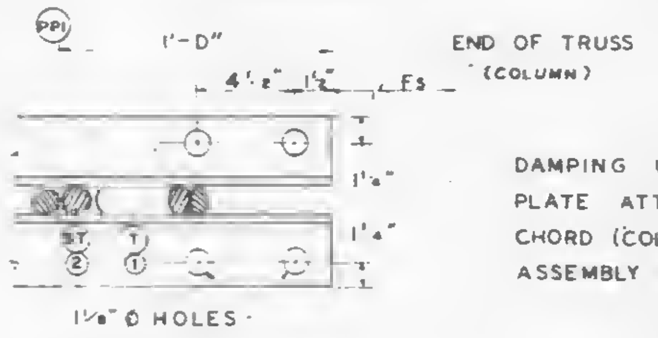


## Es END (COLUMN)



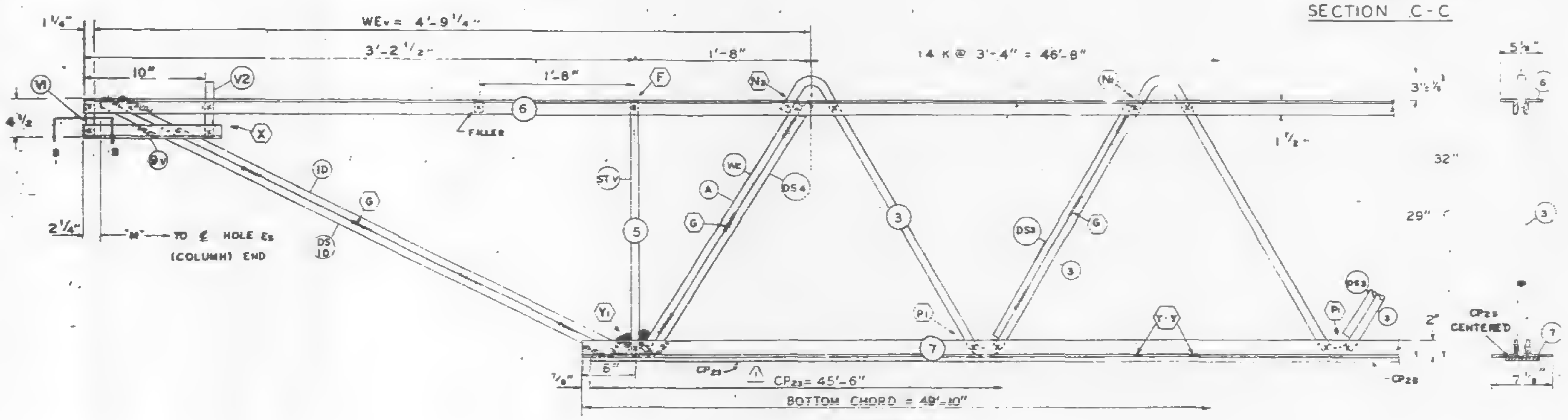
## SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST286. ⚠1
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie. R1

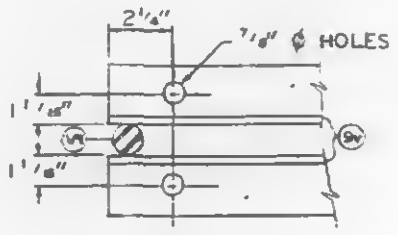


## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



## EL END (CORE)



## SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| ⚠1 | 2-18-69 | AS NOTED | T.H.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-32 | 1-6-69 |
| 7-AB4-SD. | 8-1-68 |
| 7-AB3-41 | 1-6-68 |
| 7-AB1-53 | 7-22-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | | CHORD PLATE ⚠1 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T36N-579 | 6 | A242 | 2"x1½"x 31" | 57'-9" | 7 | A36 | 3"x2"x37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 35'-4 3/4"<br>34'-8 1/8" | 8 1/2 K @ 3'-4" = 28'-4"<br>5 1/2 K @ 3'-4" = 18'-4" | 11 | 1.14 | 57'-3¾" | — | — | — | CP 23 | A36 | 4½"x.39 | 45'-6" | DS2 | A242 | .75 | 2'-4 7/8" | CP 29 | A36 | 4½"x.39" | 3'-5" |

COLUMN END

| | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | 3 | | | | | | |
| Es END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | | [illegible]GTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T36N-579 | 9 | A242 | 2"x1½"x.37" | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | [illegible] | BS 1 | A242 | 92 | 6'-3⅛" |

⚠1

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| DOUBLE STRUT | | | |
|---|---|---|---|
| MK | TYPE STEEL | DIA | LENGTH |
| BS 2A | A242 | .75 | 2'-6¾" |

CORE END

| | TRUSS DESIGNATION | BEARING ANGLES | | | | WEV | DIAGONAL "TV" STRUT ⚠ | | | | VERTICAL "STV" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT ⚠ | | | | (2) DOUBLE (REQD) STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| EL END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T36N-579 | 9 | A242 | 2"x1½"x.37 | 1'-0" | 4'-9¼ | 10 | A242 | 1.14 | 3'-8¼ | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜ | A242 | 1.14 | 7⅜ | | | | 4 | A242 | 1 | 1.14 | 2'-9½" | BS 4 | A242 | 92 | 2'-9½" | BS 10 | A242 | 75 | 3'-8¼ | BS 8 | A242 | 92 | 2'-6¾" |

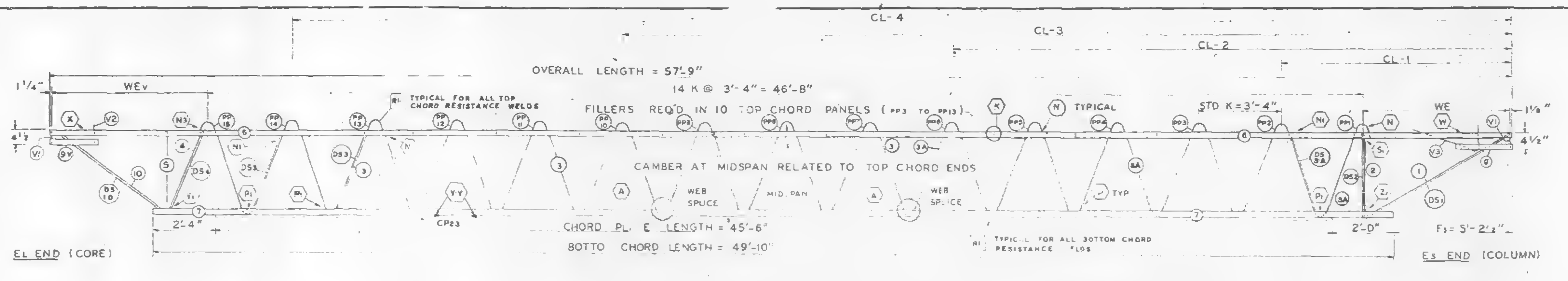
⚠1

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

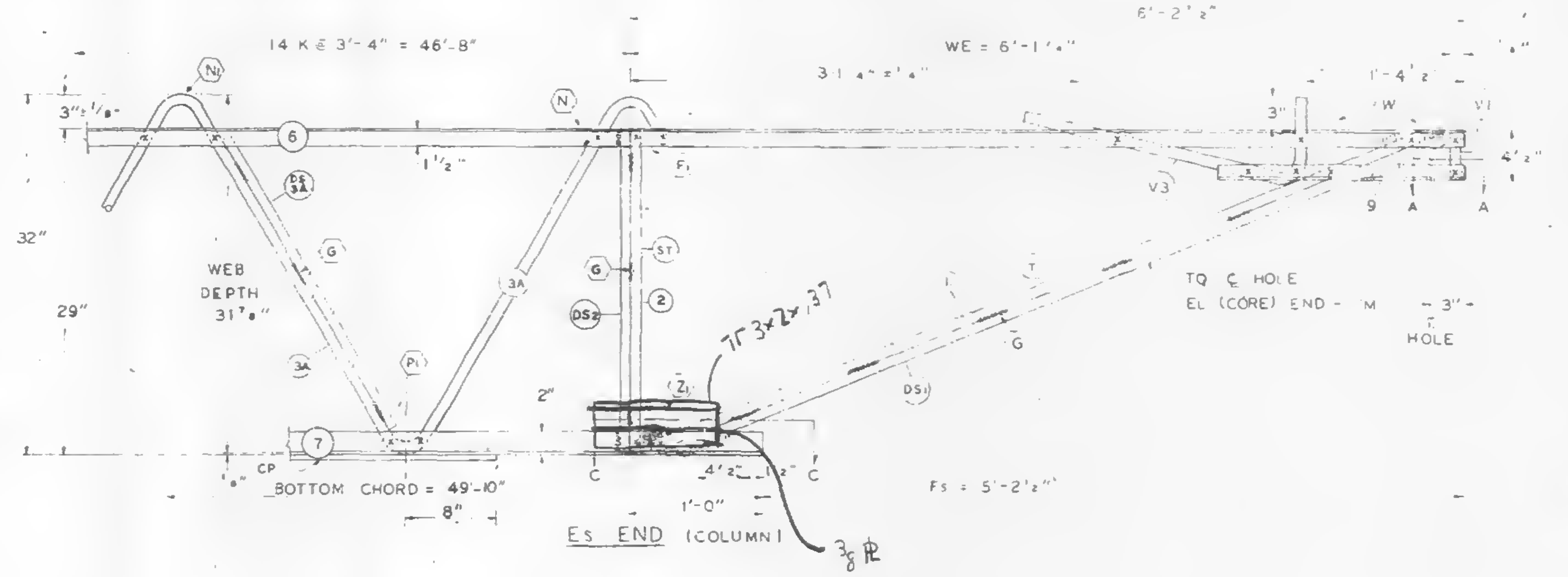
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

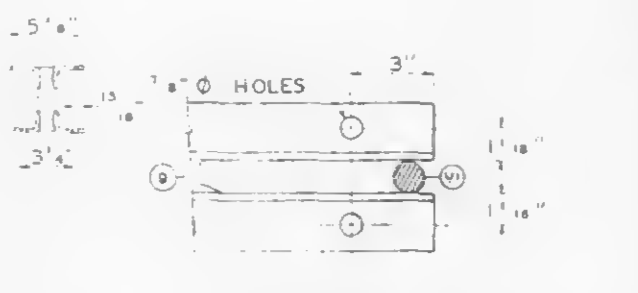
FLOOR TRUSS C32T36N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-32 PLATE
APPROVED FOR FABRICATION BY: J. White FOR P.O.N.Y.A. DATE 1/24/69
DRAWN BY: [illegible] DATE: JAN 20 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE.
CHECKED BY: T.H.C[illegible] DATE: JAN 21 1969
IN CHARGE OF PROD. DCV.
LACLEDE STEEL CO.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST236[illegible]

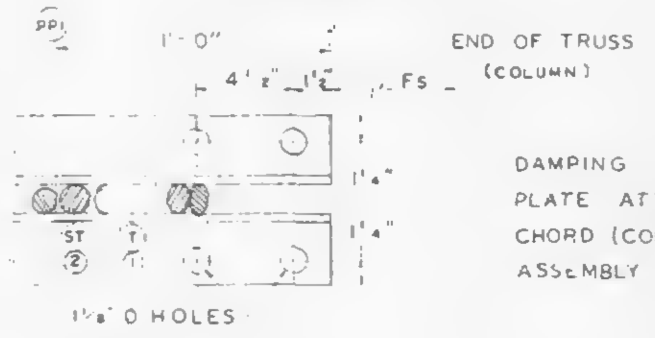

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
N TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MID PAN
WEB SPLICE
TYP
CP23
CHORD PL E LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WLDS
2'-4"
2'-0"
Fs = 5'-2 1/2"
1 1/4"
4 1/2
1 1/8"
4 1/2"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION





## SECTION A-A

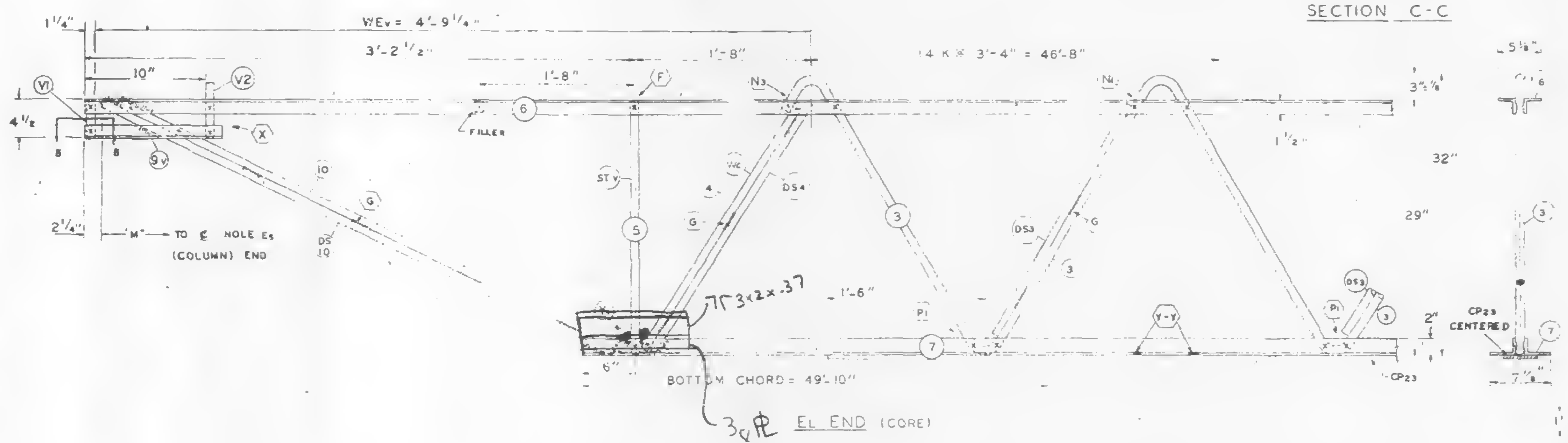


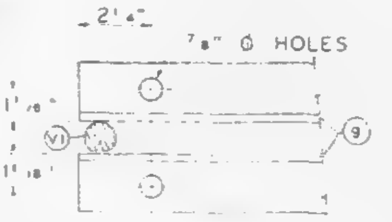
## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST287
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., RI

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTN | 29" | ± 1/4" |
| PANEL "K" | 3'-4' | ± 1/4" |
| OVERALL LENGTN | 57' | ± 3/8" |
| WEB DEPTH | [illegible] 8" | ± 1/ |





## SECTION B-B

REF DRWG.

| | |
|---|---|
| 7-AB1-32 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-8-69 |
| 7-AB1-53 | 7-22-68 |

2/19/69 SK

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T36N-579 | 6 | A242 | 2"x1 1/2"x.31 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 53'-4 3/4"<br>34'-8 1/2" | 8 1/2 K @ 3'-4" = 28'-4"<br>5 1/2 K @ 3'-4" = 18'-4" | 11 | 1.14 | 57'-3 3/4 | – | – | — | CP 23 | A36 | 4 1/2"x 39 | 45'-6" | DS2 | A242 | .75 | 2'-4 7/8" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T36N-579 | 9 | A242 | 2"x1 1/2" .25 .37 | 2'-3" | 6'-1 1/4" | 1 | A242 | 1.14 | 6'-3 1/8" | 2 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8 | [illegible] | 1.14 | 2'-9 1/2" | DS1 | A242 | .92 | 6'-3 1/8" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6 1/2" | 22'-10 1/2" | 36'-2 1/2" | 49'-6 1/2" | 5'-2 1/2" |

| DOUBLE STRUT | | | |
|---|---|---|---|
| MK | TYPE STEEL | DIA | LENGTH |
| DS 3A | A242 | .75 | 2'-6 3/4" |

CORE END

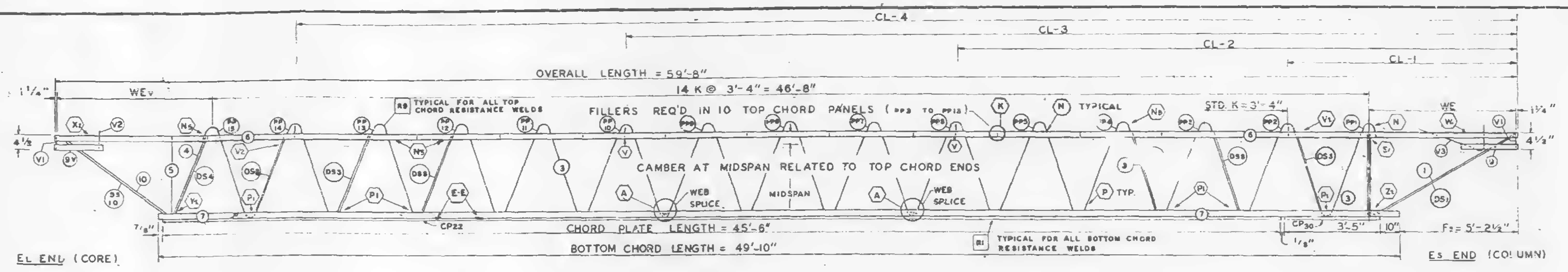
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | L STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (2) DOUBLE (PEOD) STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK V1 | | | MK V2 | | | MK V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T36N-579 | 9 | A242 | 2"x1 1/2" .25 .37 | 1'-0" | 4'-9 1/4" | 10 | A242 | 1.14 | 3'-7 3/8" | 5 | A242 | 1.14 | 2'-4 7/8" | A242 | 1.14 | 4 3/8 | A242 | 1.14 | 7 1/8 | | | | 4 | A242 | 1 | 1.14 | 2'-9 1/2" | DS4 | A242 | .92 | 2'-9 1/2" | DS10 | A242 | .75 | 3'-7 3/4" | DS3 | A242 | .92 | 2'-6 3/4" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER · N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T36N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A&B

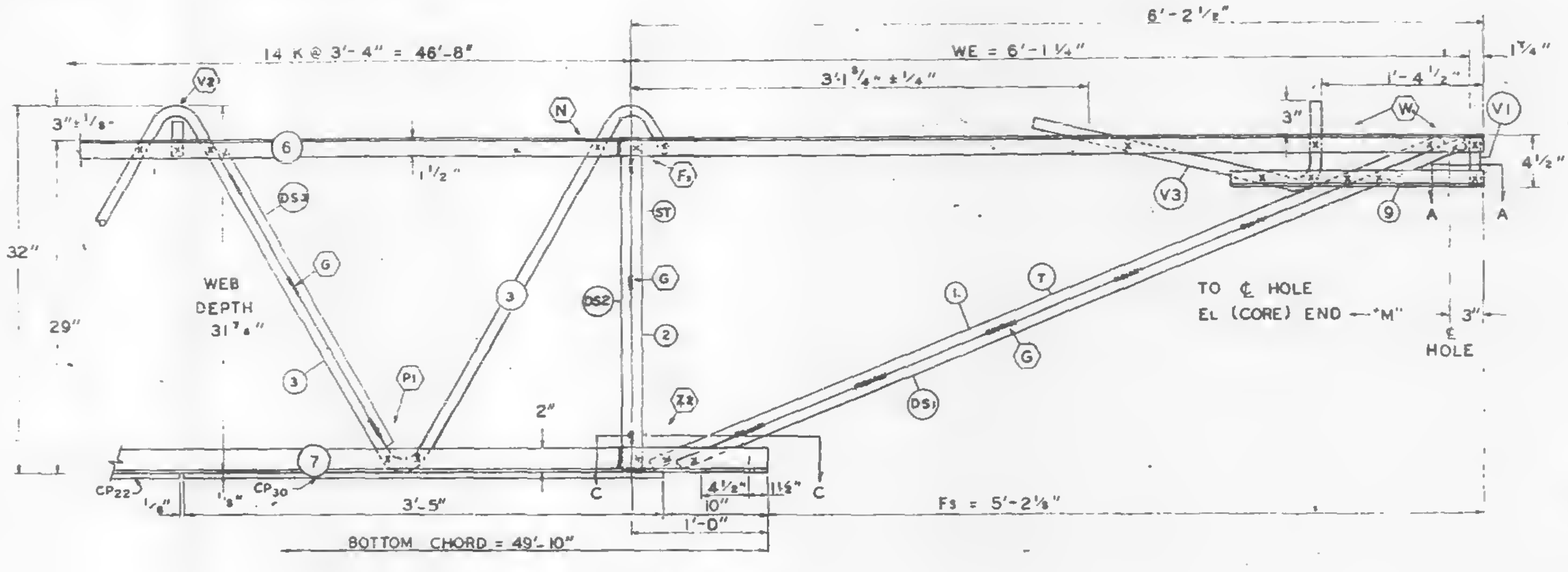
FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-32 | PLATE |
| APPROVED FOR FABRICATION BY FOR PONYA | DATE | DRAWN BY LR<br>DATE JAN 20 1969 | |
| APPROVED FOR FABRICATION BY A C WEBER FOR FABRICATOR | DATE | CHECKED BY T.M.CHURA<br>DATE JAN 21 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. C. WEBER | | FABRICATION CONT NO W T C 221 | SHEET NO ST236N |

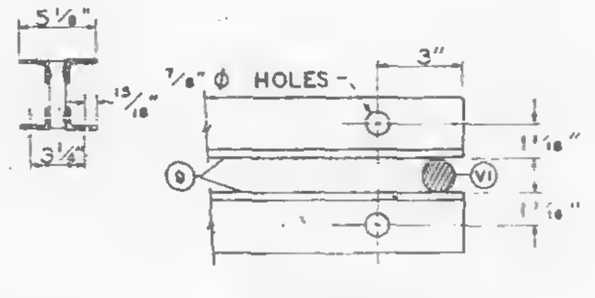

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
WEv
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP12)
TYPICAL
STD. K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP.
CHORD PLATE LENGTH = 45'-6"
CP22
CP30
3'-5"
10"
Fs = 5'-2½"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTN | 31 7/8" | ± 1/4" |

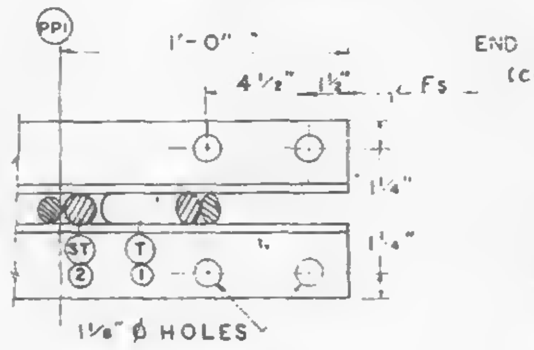


Es END (COLUMN)



SECTION A-A

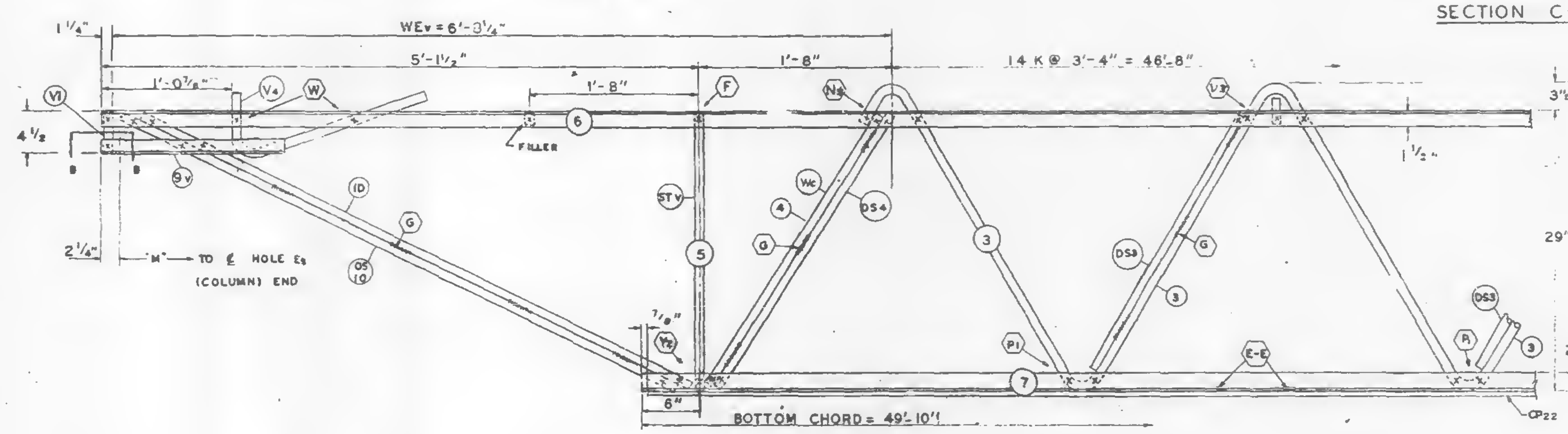
ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290 — ST294 AND ST285
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAN, ie., R1



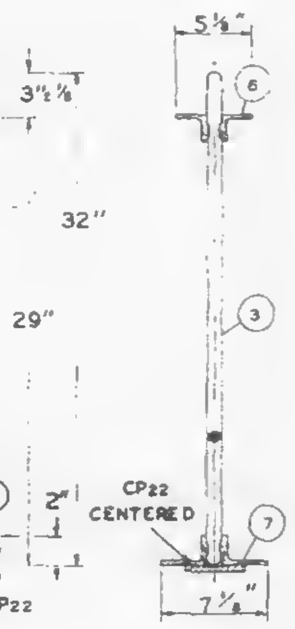
SECTION C-C

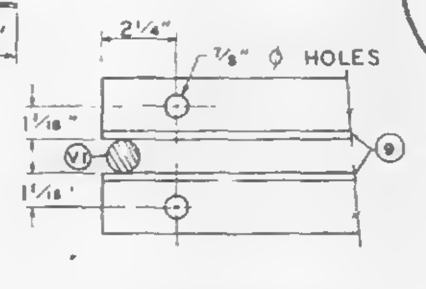
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS

VOID



EL END (CORE)





SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

Truss length not reqd

| REF DRWG. | | |
|---|---|---|
| | 7-AB1-33 | 1-6-69 |
| | 7-AB4-30 | 8-1-68 |
| | 7-AB3-41 | 1-6-69 |
| | 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTRDCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | PL EEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTN | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37C-598 | 6 | A242 | 2"x1½"x37 | 59'-8" | 7 | A36 | 3"x2"x37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4"= 46'-8" | 11 | 1.14 | 59'-2¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x.50 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| C32 [illegible]C 598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1½" | 1 | A242 | 1.14 | 6'-3¼" | 2 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 2'-9½" | [illegible] | A242 | 1.14 | 6'-3½" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2" |

| CHORD PLATE | | | |
|---|---|---|---|
| MK. | TYPE STEEL | SIZE | LENGTH |
| CP30 | A36 | 6½"x.50" | 3'-5" |

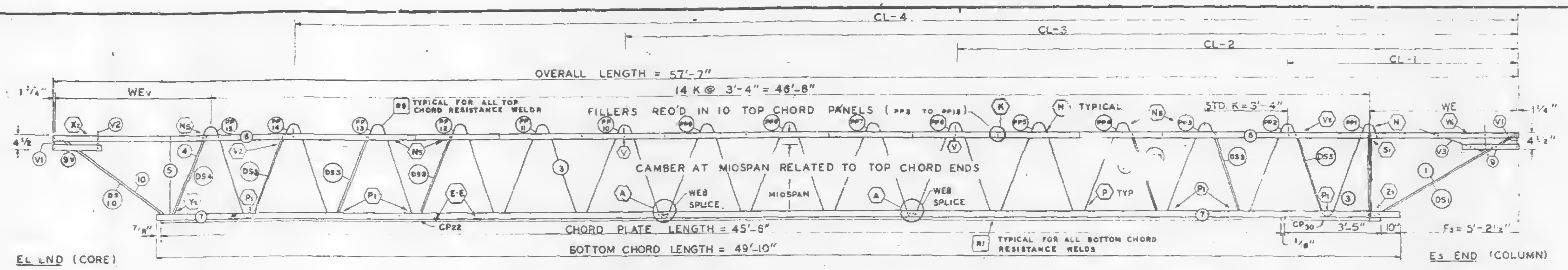
CORE END

| EL END TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (8) DOUBLE STRUT REQD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | [illegible] | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37C 598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8" | 10 | A242 | 1.14 | 5'-4½" | 3 | A242 | 1.14 | [illegible] | [illegible] | [illegible] | [illegible] | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | [illegible] | 1.14 | 2'-9½" | [illegible] | A242 | 1.14 | 2'-9⅛" | DS10 | A242 | 1.14 | 5'-4¼" | DS3 | A242 | 1.14 | 2'-8¾" |

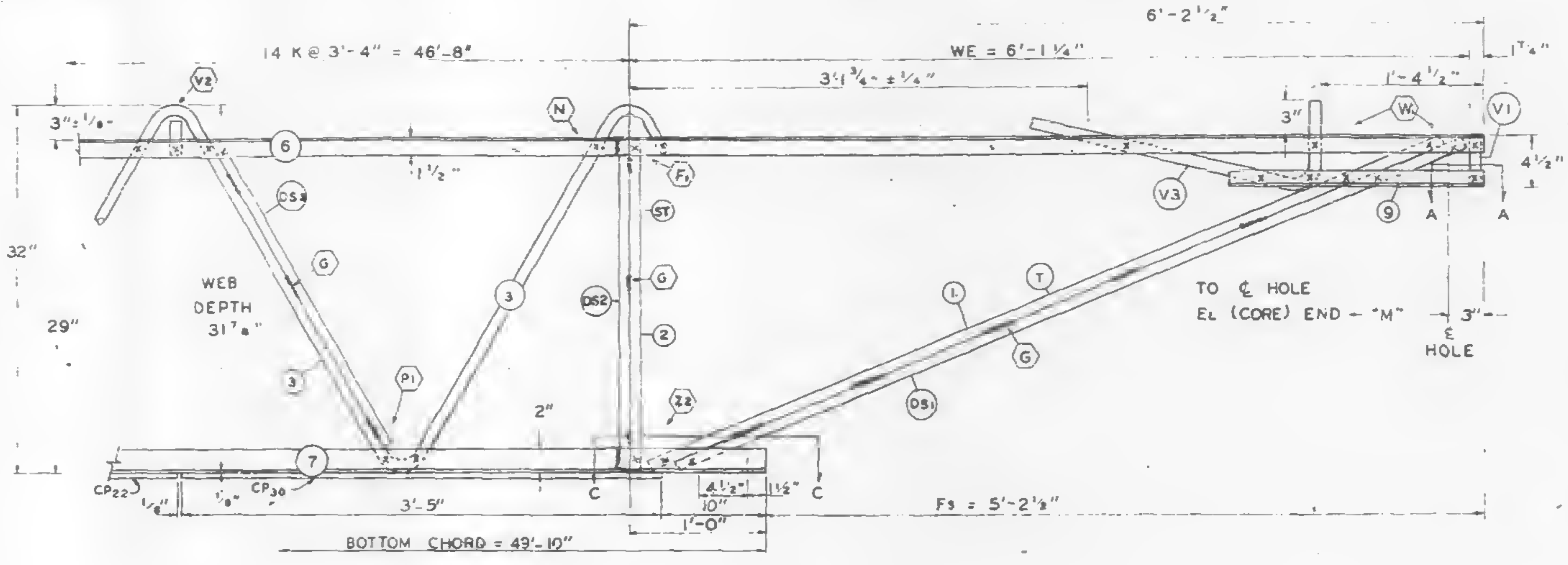
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T37C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. [illegible]
APPROVED FOR FABRICATION FOR P.O.N.Y.A. BY: DATE:
DRAWN BY: [illegible] DATE: MAY 6, 1969
APPROVED FOR FABRICATION BY: [illegible] DATE:
CHECKED BY: [illegible] DATE: MAY 6, 1969
DETAILED: [illegible]

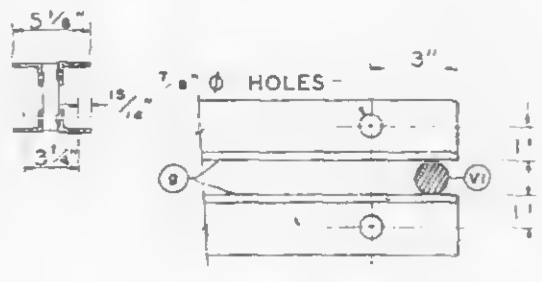

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
WEv
WE
1¼"
4½"
R9 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS ( PP3 TO PP13 )
K
N TYPICAL
STD K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
CP22
CP30
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
3'-5"
10"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

TRUSS ELEVATION

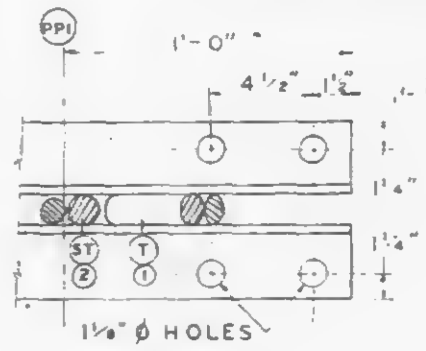


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST285
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAN, ie., R1



SECTION A-A

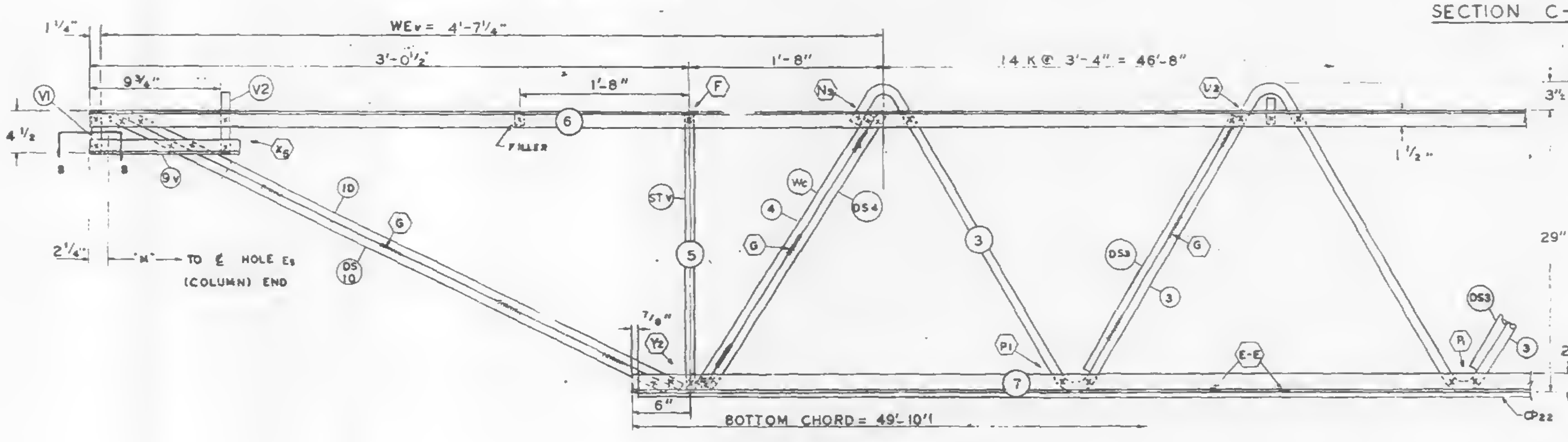


SECTION C-C

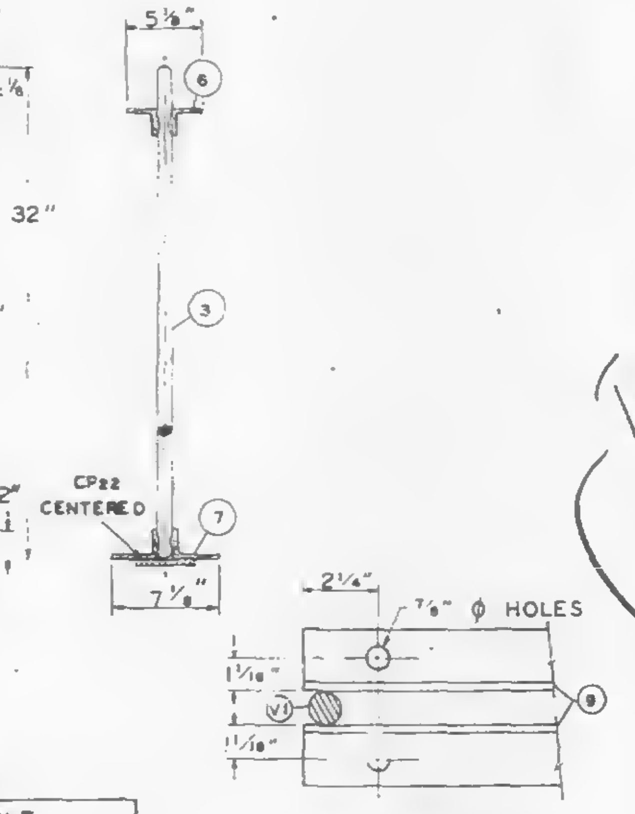
DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS.

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
APPROVED AS NOTED
SK

VOID



EL END (CORE)



SECTION B-B

Trans length not req'd

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |

REF DRWG.

| | |
|---|---|
| 7-AB1-33 | 1-8-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-8-69 |
| 7-AB1-53 | 7-22-68 |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37P 577 | 6 | A242 | 2"x1½"x37" | 57'-7" | 7 | A36 | 3"x2"x37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-1¾" | 4 | 1.14 | 3" | CP 82 | A36 | 6½"x.50 | 45'-6" | DS 2 | A242 | .75 | 2'-4" |

COLUMN END

| Es END | TRUSS DESIGNATIC | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH |
| | C32T37P 577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 0'-3⅛" | 2 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 2'-9½" | DS 1 | A242 | 1.14 | 6'-3⅛" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (8) DOUBLE REQD STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTN | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTN | MK | TYPE STEEL | DIA | LENGTH |
| | C32T37P 577 | 9 | A242 | 2"x1½"x.37 | 11¾" | 4'-7¼" | 10 | A242 | 1.14 | 3'-7" | 5 | A242 | 1.14 | 2'-4" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 7⅝" | | | | 4 | A242 | 1 | 1.14 | 2'-9" | DS 4 | A242 | 1.14 | 2'-9½" | DS 10 | A242 | 1.14 | 3'-7" | DS 3 | A242 | 1.14 | 2'-8¾" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | -2½" |

| CHORD PLATE | | | |
|---|---|---|---|
| MK. | TYPE STEEL | SIZE | LENGTH |
| CP 30 | A36 | 6½"x.50" | 3'-5" |

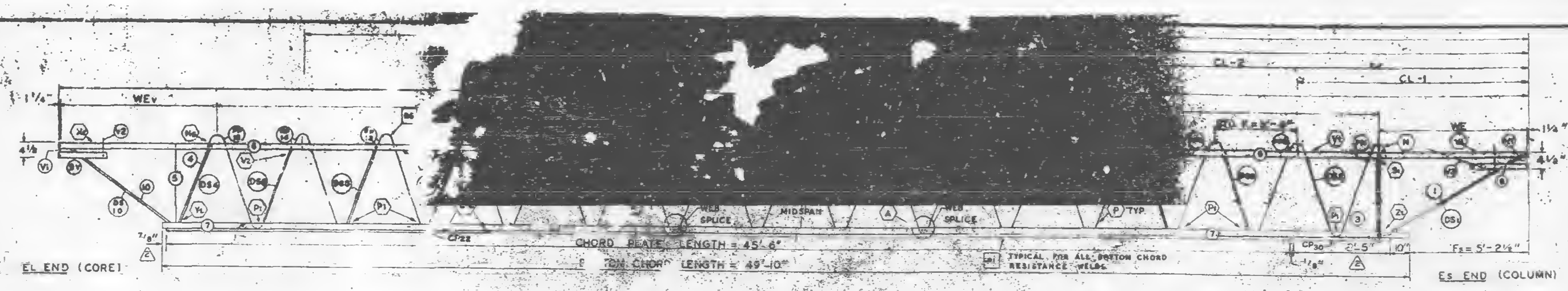
| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

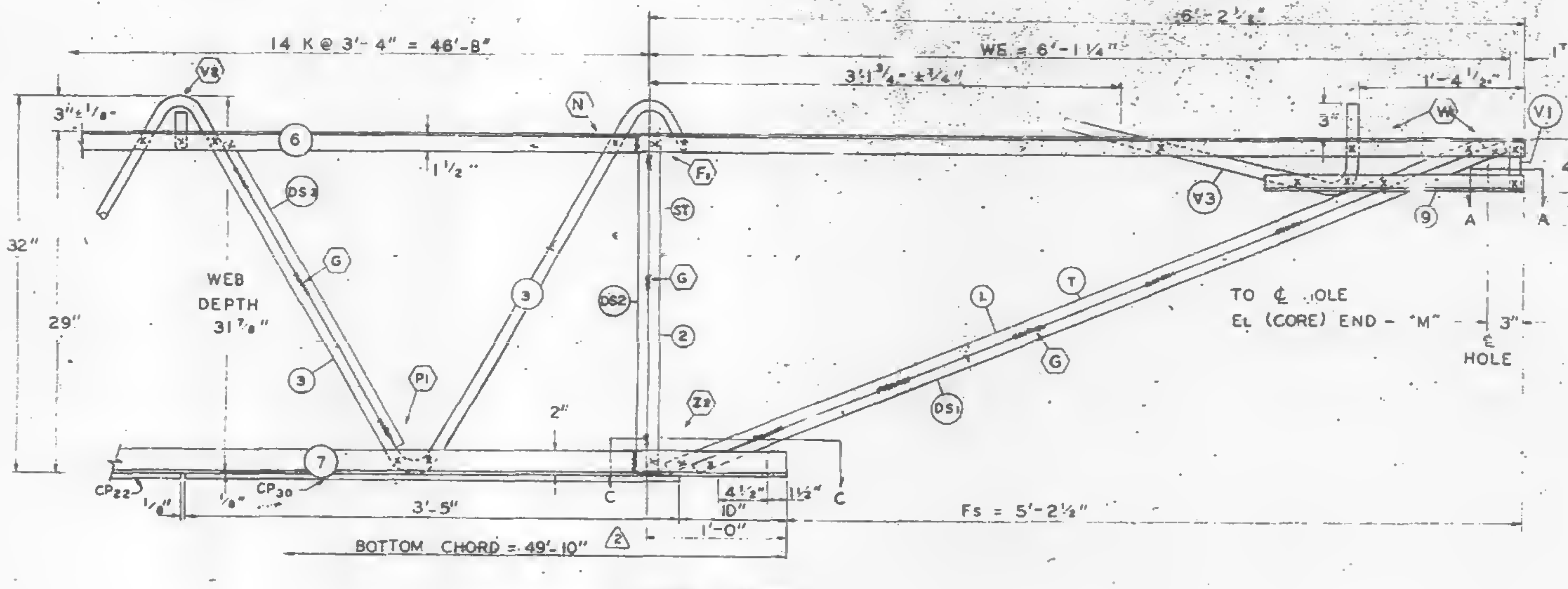
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T37P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A&B

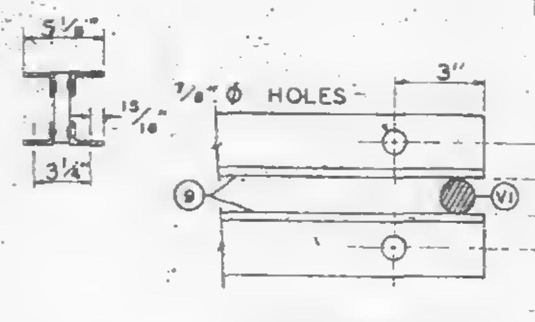
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE
DETAILED BY: [illegible]
LACLEDE STEEL CO.
DESIGN DRAWING [illegible] PLATE [illegible]
DRAWN BY: [illegible] DATE [illegible]
CHECKED BY: [illegible] DATE [illegible] IN CHARGE OF [illegible]
FABRICATION CONT. W.T.C. 22[illegible]



TRUSS ELEVATION

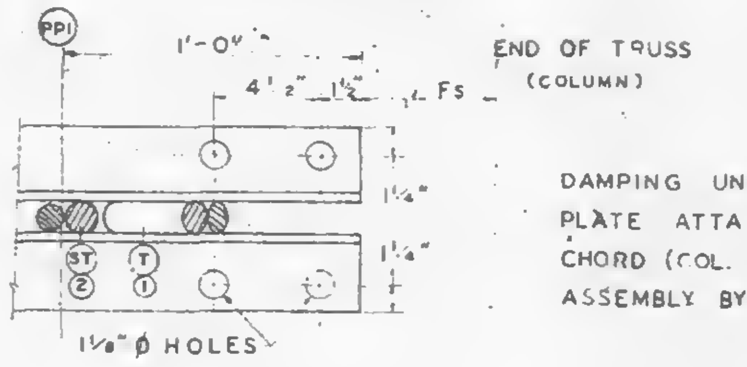


Es END (COLUMN)



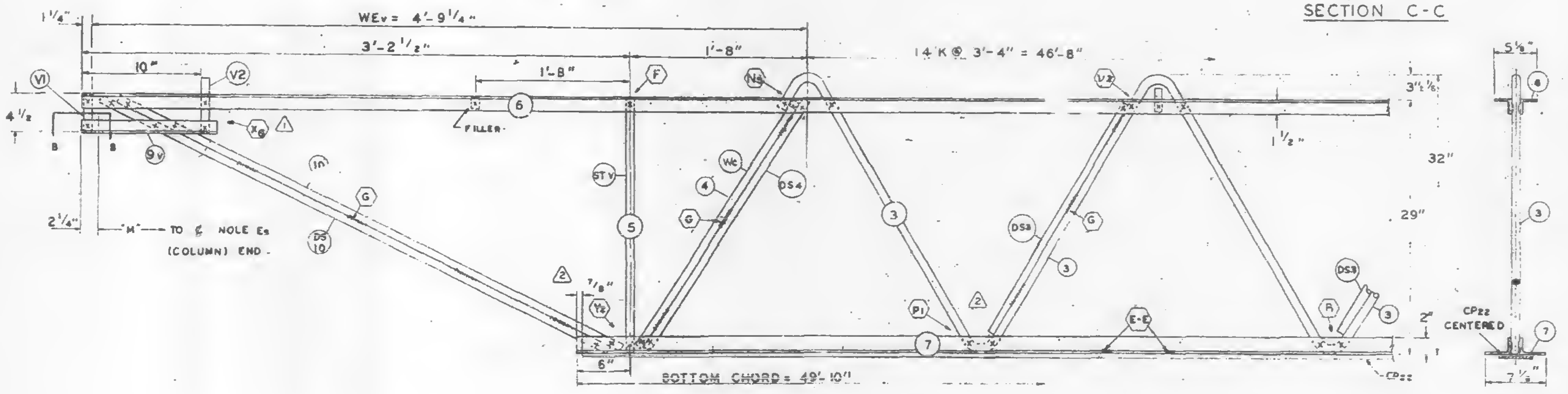
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST292 – ST294 AND ST286 △1
SEE SHEET ST295 FOR V1, V2 V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., ⬡A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie., RI

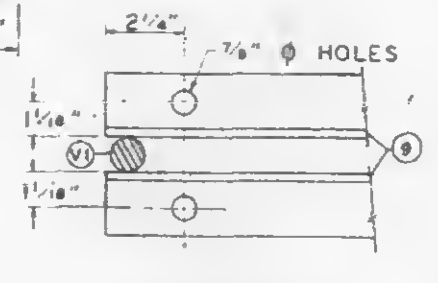


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT ½ SPAN | 2 1/4" | ± 3/8 |
| DESIGN DEPTH | [illegible] | ± 3/8" |
| PANEL "K" | 3'-4" | ± 1/8" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

| NO | DATE | REVISION | BY |
|---|---|---|---|
| △2 | 2-26-69 | AS NOTED | G.D. |
| △1 | 2-18-69 | AS NOTED | T.M. |

REF DRWG.

| | |
|---|---|
| 7-A81-38 | 1-6-68 |
| 7-A84-5D | 8-1-68 |
| 7-A83-41 | 1-6-69 |
| 7-A81-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x.50 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅜" | A242 | [illegible] | 2'-9½" | [illegible] | A242 | 1.14 | [illegible] |

△1

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6⅛" | 5'-2⅛" |

| CHORD PLATE △2 | | | |
|---|---|---|---|
| MK. | TYPE STEEL | SIZE | LENGTH |
| CP30 | A36 | 6½"x.50" | 3'-5" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (6) DOUBLE (RODS) STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.37 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-8¼ | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅜ | A242 | 1.14 | 7⅛ | | | | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | 1.14 | 2'-9½" | DS10 | A242 | 1.14 | 3'-6¼ | DS3 | A242 | 1.14 | 2'-6¾" |

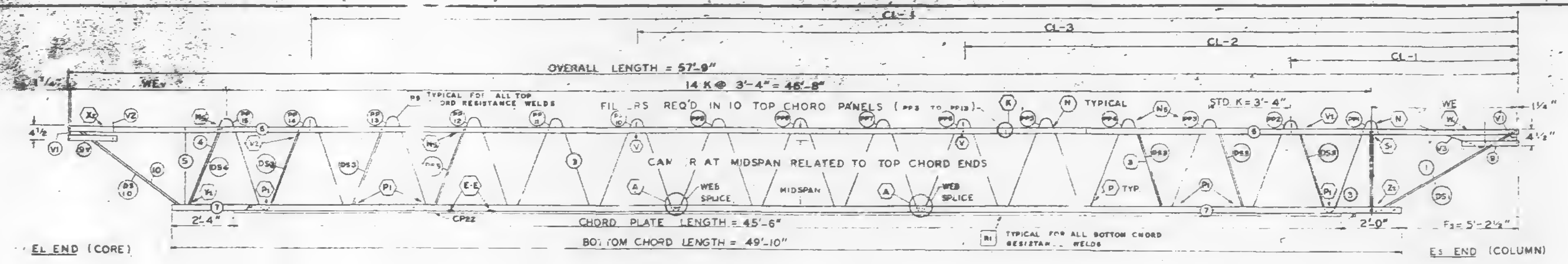
△1

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

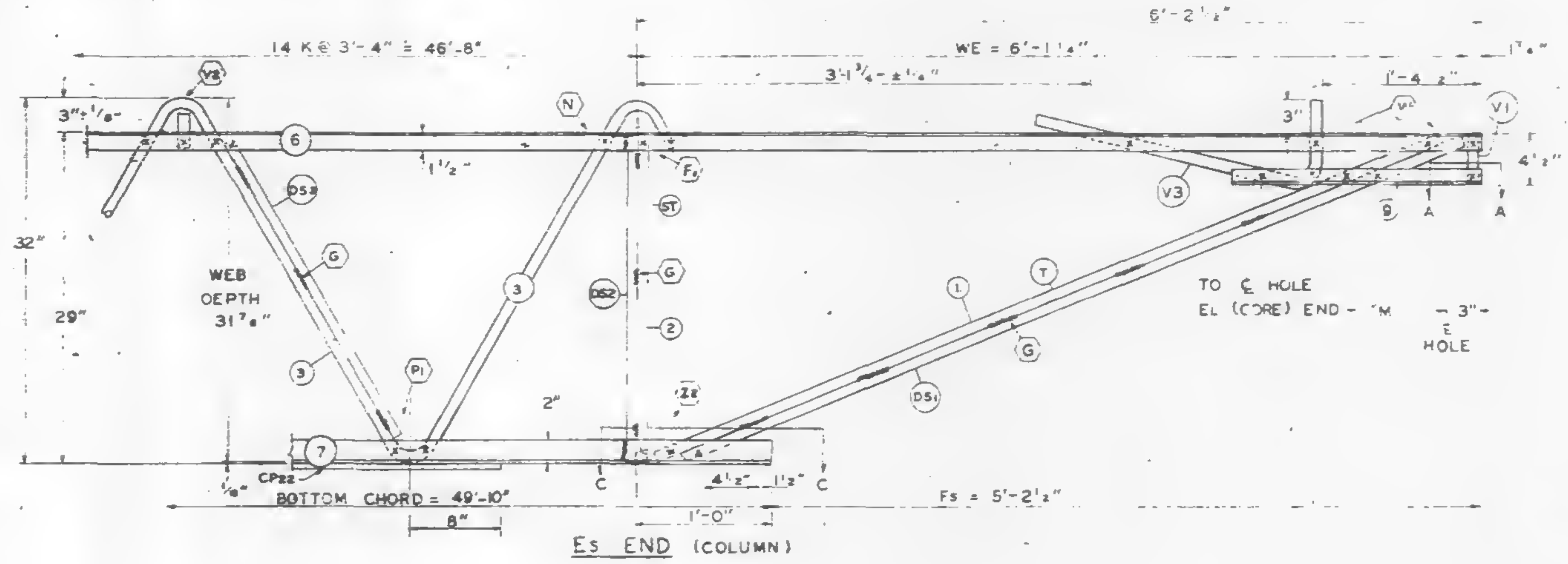
FLOOR TRUSS C32T37N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B.

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AM-53 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. | DATE [illegible] | DRAWN BY: [illegible] DATE. JAN. 20 1969 | |
| APPROVED FOR FABRICATION BY. FOR FABRICATOR LACLEDE STEEL CO. | DATE. | CHECKED BY: [illegible] DATE JAN. 21, 1969 | IN CHARGE OF PROD. CEV. |
| DETAILED BY A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO ST237N |

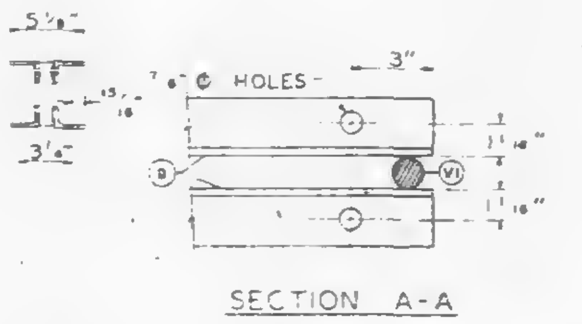

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEV
WE
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP12)
TYPICAL
STD K = 3'-4"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
TYP
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
2'-4"
CP22
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

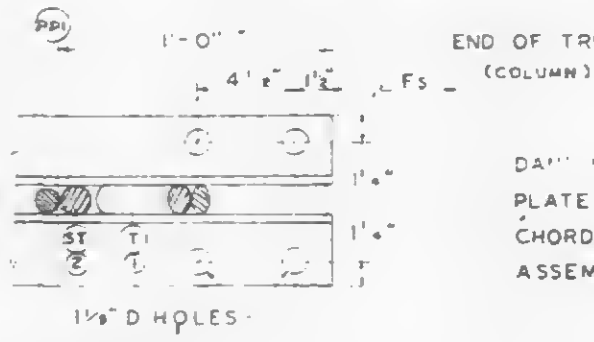


Es END (COLUMN)

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286 △
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS i.e., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R1



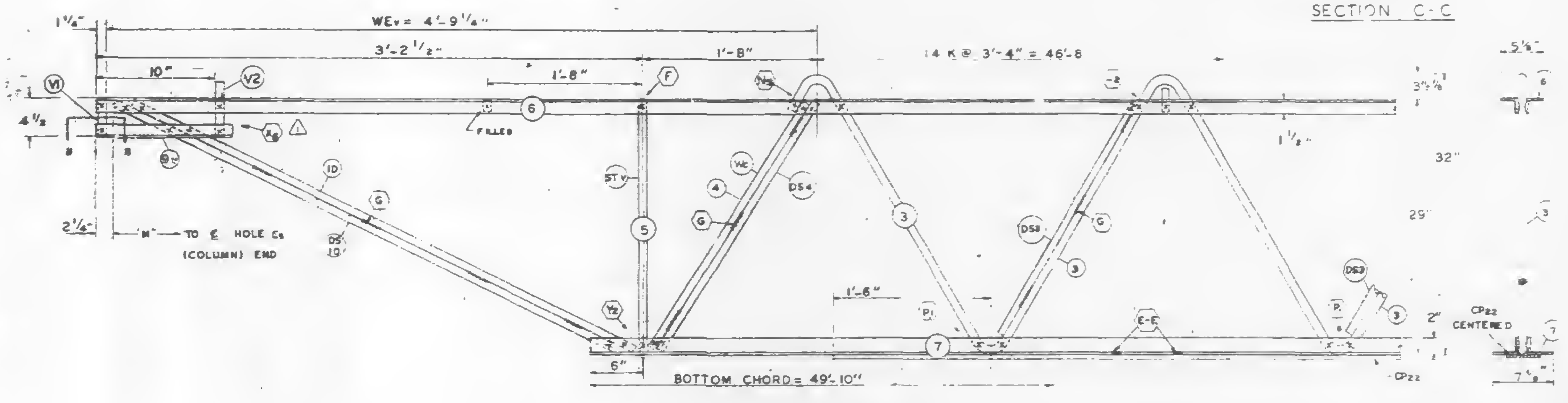
SECTION A-A



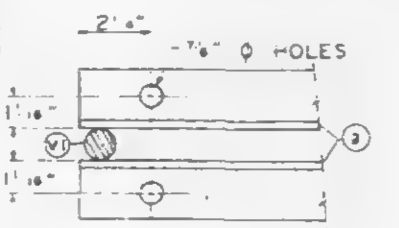
1⅛" D HOLES

SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| FABRICATION [illegible] | | |
|---|---|---|
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | ± 1/4 |
| PANEL "K" | 3'-4" | ± 1/4 |
| OVERALL LENGTH | 57'-9" | 3/8" |
| WEB DEPTH | 31 7/8 | ± 1/4 |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △1 | 2-18-69 | AS NOTED | T.M.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-38 | 1-6-69 |
| 7-AB4-50 | 9-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37N-579 | 6 | A242 | 2"x1½"x 37 | 57'-9" | 7 | A36 | 3"x 2" x 37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x .50 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | STEEL | | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.37 △1 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4¾" | A242 | 1.14 | 4¾" | A242 | 1.14 | 9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

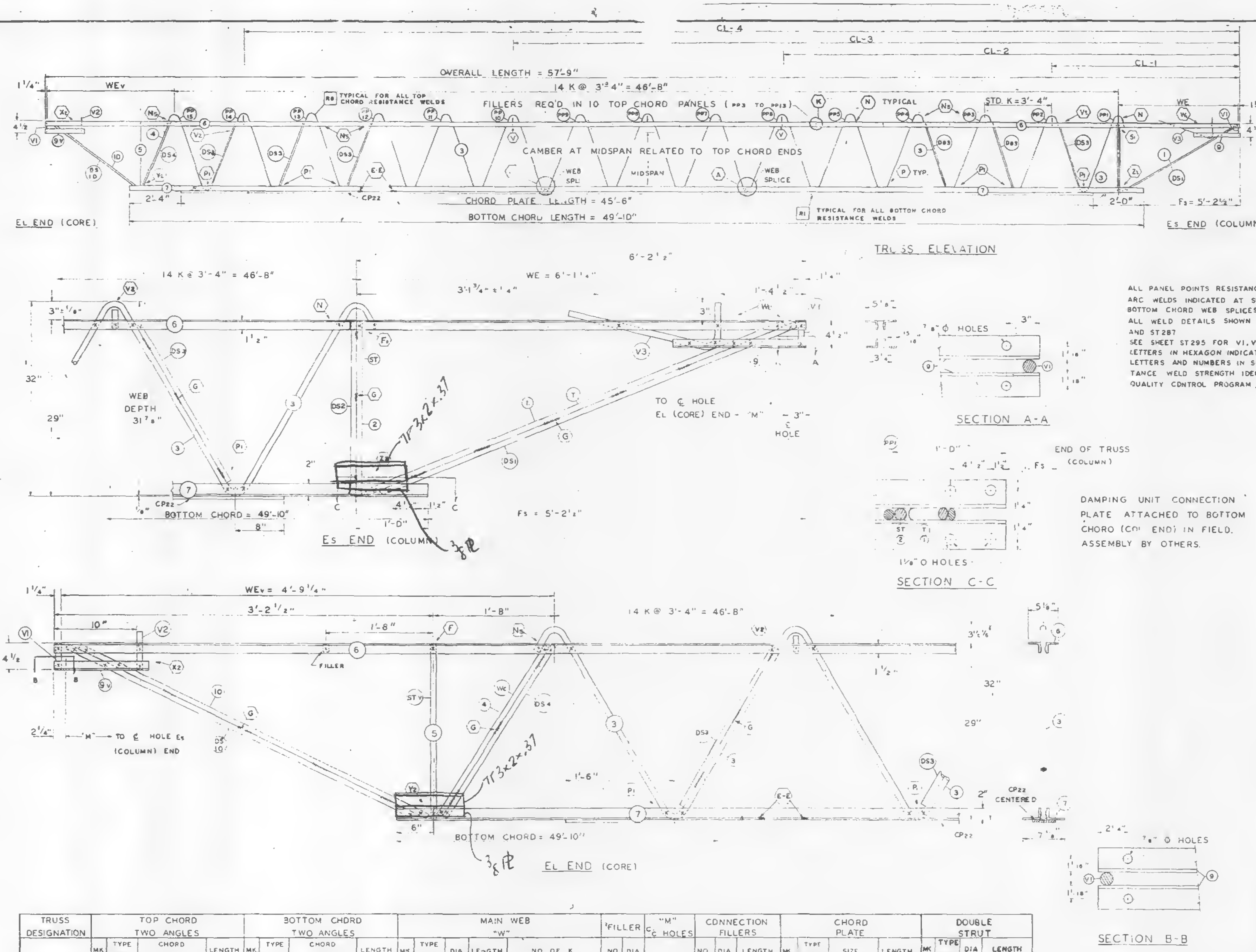
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEV | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "WC" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (5) DOUBLE STRUT REQD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.37 △1 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-8¼" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4¾" | A242 | 1.14 | 7⅝" | | | | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | 1.14 | 2'-9½" | DS10 | A242 | 1.14 | 3'-8¼" | DS3 | A242 | 1.14 | 2'-8¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T37N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
[illegible] DRAWING NO. 7-A[illegible]
PLATE
APPROVED FOR FABRICATION James [illegible] FOR PORT A. DATE [illegible]
DRAWN BY [illegible] DATE JAN 20 1969
[redacted] BY FOR FABRICATOR DATE
CHECKED BY [illegible] DATE [illegible] 1969
IN CHARGE OF [illegible]
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. [illegible]
DETAILED BY: A.C. [illegible]



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST287
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie. [R1]

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS.

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/4" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± ⅛" |
| OVERALL LENGTH | 57'-9" | ⅛" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

REF DRWG

| | |
|---|---|
| 7-AB1-33 | 1-6-69 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10DC1

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" ℄-℄ HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T37N-579 | 6 | A242 | 2"x1½"x37 | 57'-9" | 7 | A36 | 3"x2"x37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A242 | 6½"x.50 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES .37 | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1 | [illegible]'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

2/4/69 SK

CORE END

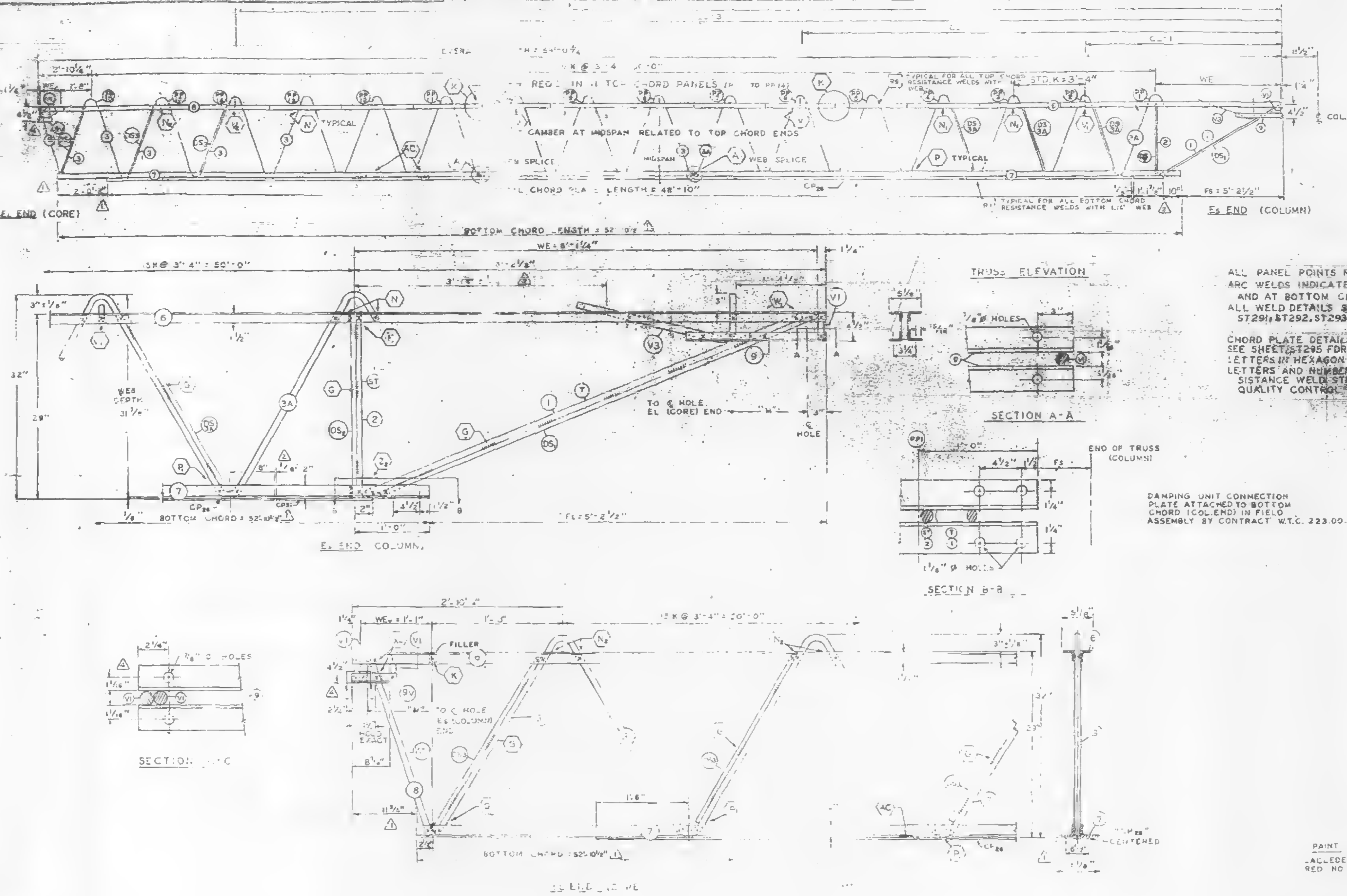
| EL END | TRUSS DESIGNATION | BEARING ANGLES .37 | | | | WEv | DIAGONAL "TV" STRUT | | | | VERTICAL "STV" STRUT | | | | END STIFFENER MK. V1 | | | END STIFFENER MK. V2 | | | END STIFFENER MK. V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (8) REQ'D DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T37N-579 | 9 | A242 | 2"x1½"x.25 | 1'-0" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7⅜" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | | | | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | 1.14 | 2'-9½" | DS10 | A242 | 1.14 | 3'-7⅜" | DS3 | A242 | 1.14 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T37N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

| | |
|---|---|
| FABRICATED AT: MADISON, ILLINOIS | DESIGN DRAWING NO 7-AB1-33 PLATE |
| APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE | DRAWN BY: L.A. DATE: JAN. 20 1969 |
| APPROVED FOR FABRICATION BY: A.C. WEBER FOR FABRICATOR DATE. | CHECKED BY: T.M.CHURA DATE: JAN. 21, 1969 / IN CHARGE OF PROD. DEV. |
| DETAILED BY: A.C. WEBER | FABRICATION CONT. NO. W.T.C. 221 / SHEET NO. ST237N |



| FABRICATION | |
|---|---|
| CAMBER AT MIDSPAN | |
| DESIGN DEPTH | |
| PANEL "K" | |
| OVERALL LENGTH | |
| WEB DEPTH | |

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST294, ST294A

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM. R-1

DAMPING UNIT CONNECTION
PLATE ATTACHED TO BOTTOM
CHORD (COL. END) IN FIELD
ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 5 | 3-11-69 | AS NOTED | G.D.C. |
| 4 | 3-3-69 | END STIFFENER | D.C.C. |
| 3 | 2-21-69 | AS NOTED | G.D.C. |
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-34 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-AB1-54 | 11-25-66 |
| 7-AB-53 | [illegible] |
| 7-AB3-70 | 11-25-38 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | |
| 3'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| C32T38-59075 | [illegible] | A242 | 2"x1½"x3" | [illegible] | [illegible] | [illegible] | 52'-10½" | 3 / 3A | A242 / A242 | .114 / .114 |

| | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LGTH |
| C32T38-59075 | DS1 | A242 | 1.14 | 6'-3⅛" | DS3A | A242 | .92 | 2'-6¼" | DS2 | A242 | .75 | 2'-4⅞" | [illegible] | A36 | 6½x.50 | 1'-1⅞" |

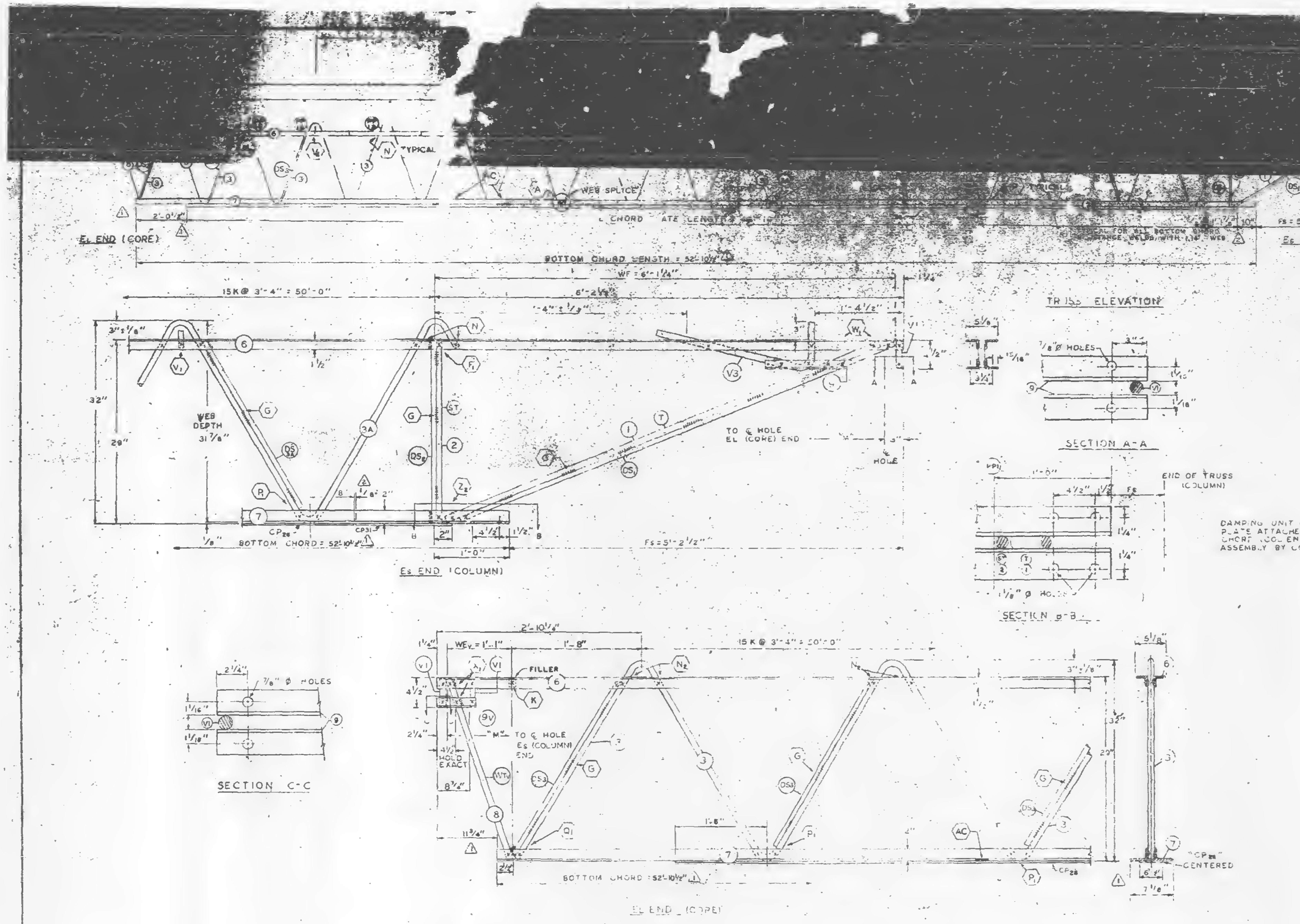
| TRUSS DESIGNATION | BEARING ANGLE | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | END STIFFENER | | | WEB "WLV" | WEB "NTV" |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T38-59075 | 8V | A242 | 2"x1½"x37" | 0'-10" | 1'-1" | DS4 | A242 | .114 | 2'-6¾" | A242 | 1.14 | 4⅞" | [illegible] |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

[illegible] STEEL COMPANY

DESIGN DRAWING NO. 7-AB1-34
DRAWN BY [illegible]
DATE JAN 21, 1969
CHECKED BY T.M.CHRISA
DATE JAN 21, 1969
IN CHARGE OF PROD. DEV.
3/2/69
DETAILED BY CARL WEBER
221
SHEET NO. ST 238



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST287.

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS.
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e., (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R-1

FABRICATION

DESIGN DEPTH
PANEL "K"
OVERALL LENGTH
WEB DEPTH

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 3 | 2-21-69 | AS NOTED | G.D.C. |
| 2 | 2-18-69 | AS NOTED | T.M.C. |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-34 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-68 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-58 |

PAINT

LACLEDE ELECTROCOAT
RED NO. 10001

CHECK DIMENSION FOR TRUSS FAB.

LOCATION OF TRANS. TRUSS

| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
|---|---|---|---|---|
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | TOP CHORD MK | TYPE STEEL | SIZE | [illegible] | [illegible] | LENGTH | MAIN WEB | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C32T38-59075 | 6 | A242 | 2"x1½"x .37" | [illegible] | A36 | 52'-10½" | 3 | A242 | 1.14 | 56'-0¾" | 9K @ 3'-4" = 30'-0" | 1.14 | A36 | 6½"x½" | 48'-10" |
| | | | | | | | 3A | A242 | 1.14 | 40'-11¼" | 6K @ 3'-4" = 21'-8" | | | | |

| COLUMN END | Es END | MK | TYPE STEEL | CHORD SIZE | LENGTH | | | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | DOUBLE STRUT MK | TYPE STEEL | DIA. | LENGTH | CHORD PLATE MK | TYPE STEEL | SIZE | LGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T38-59075 | 9 | A242 | 2"x1½"x .37" | 2'-3" | 6'-1¼" | | A242 | 1.14 | 6'-3⅞" | A242 | 1.14 | 2'-4⅞" | DS₁ | A242 | 1.14 | 6'-3⅛" | DS₂ₐ | A242 | .92 | 2'-6¾" | DS₂ | A242 | .75 | 2'-4⅞" | CP₂₈ | A36 | 6½"x 50 | 1'-1⅞" |

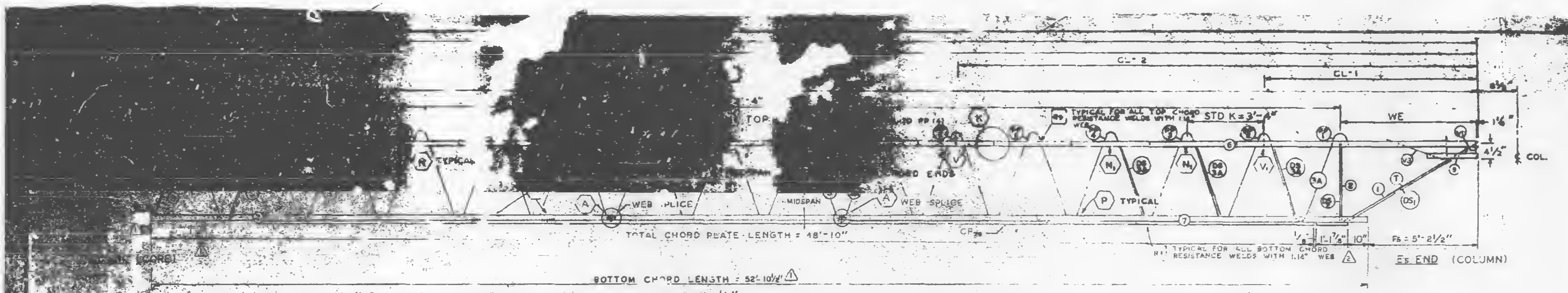
| CORE END | EL END | BEARING ANGLE MK | TYPE STEEL | SIZE | | WEV | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | DOUBLE STRUT | END STIFFENER TYPE STEEL | DIA | LENGTH | WEB "WEV" | WEB "WTV" MK | TYPE STEEL | | DIA | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T38-59075 | 9V | A242 | 2"x1½"x .37" | 0'-10" | 1'-1" | DS₃ | A242 | 1.14 | 2'-6¾" | [illegible] | A242 | 1.14 | 1'-4¾" | [illegible] | 8 | A242 | 1 | 1.14 | 2'-6⅞" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

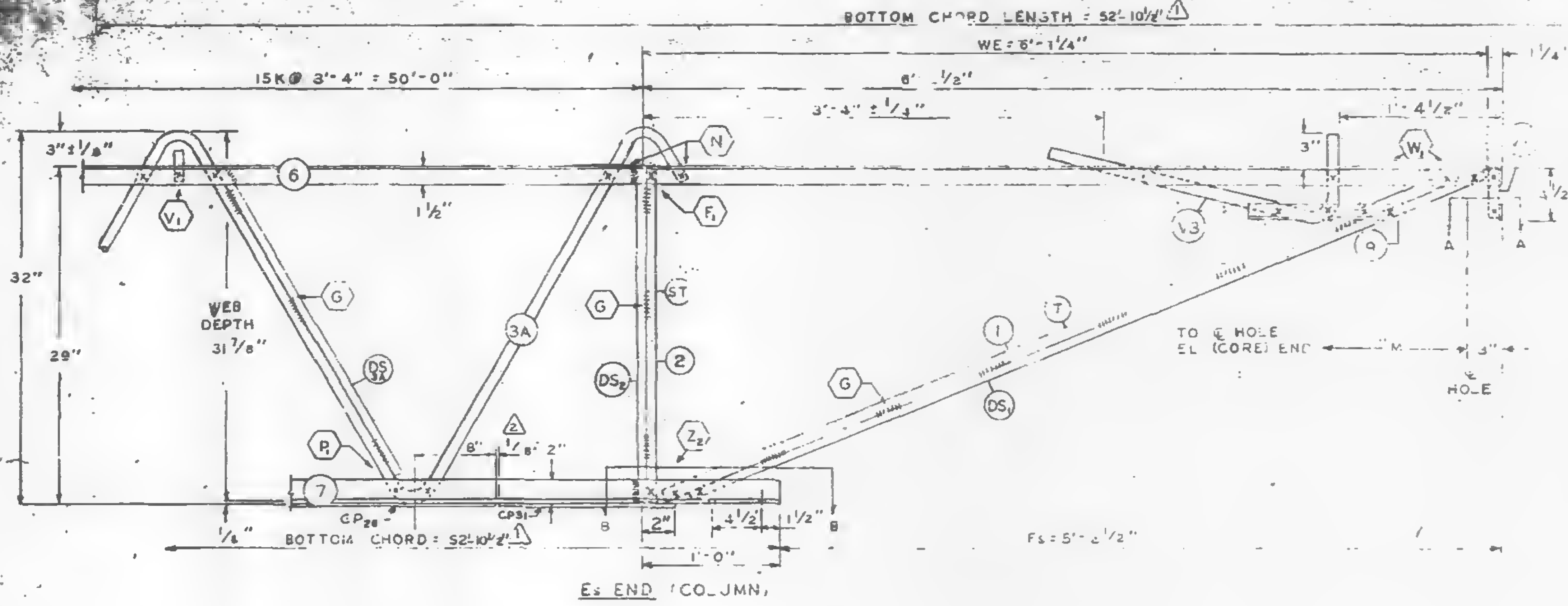
FABRICATED BY LACLEDE STEEL COMPANY

FABRICATED AT MADISON, ILL.
DESIGN DRAWING NO. 7-AB1-34
DATE 3/4/69
DRAWN BY
DATE JAN 21, 1969
CHECKED BY T.M.CHURA
DATE JAN 21, 1969
James White
LACLEDE STEEL CO.
FABRICATION CONT. NO 221
SHEET NO. ST 238



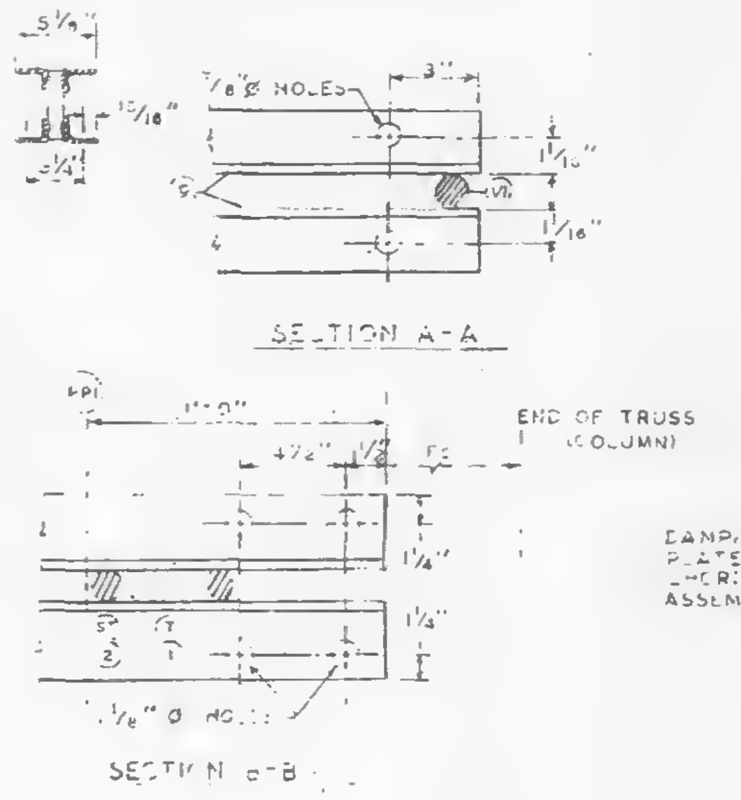
CL-2
CL-1
WE
STD K = 3'-4"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS WITH 1.14" WEB
1'-6"
4½"
COL.
TYPICAL
WEB SPLICE
MIDSPAN
WEB SPLICE
TYPICAL
TOTAL CHORD PLATE LENGTH = 48'-10"
CP₂₈
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS WITH 1.14" WEB
10"
Fs = 5'-2½"
(CORE)
Es END (COLUMN)

| | | |
|---|---|---|
| [illegible] | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | [illegible] | [illegible] |
| OVERALL LENGTH | [illegible] | [illegible] |
| WEB DEPTH | [illegible] 7/8 | [illegible] 1/4 |



Es END (COLUMN)

TRUSS ELEVATION

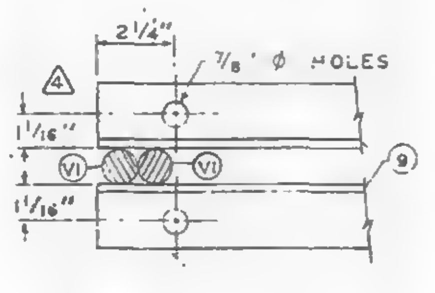


SECTION A-A

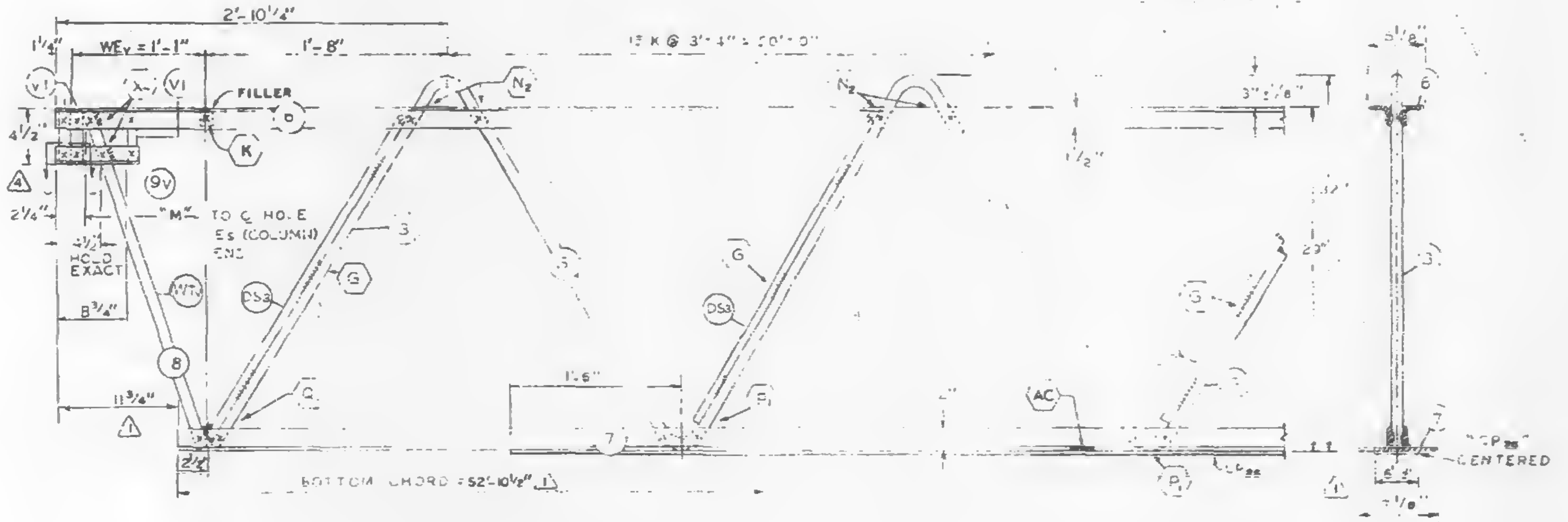
SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES (▥)
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, AND ST287, ST294 △4
△2
CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. [R-1]

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD AT COLUMN END IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.



SECTION C-C



EL END (CORE)

| △4 | 3-3-69 | END STIFFENER | D.C.C. |
|---|---|---|---|
| △3 | 2-21-69 | AS NOTED | G.D.C. |
| △2 | 2-18-69 | AS NOTED | T.M.C. |
| △1 | 1-31-69 | AS NOTED | G.D.C. |
| NO. | DATE | REVISION | BY |

REF. DRWG.

| | |
|---|---|
| 7-A81-34 | 1-6-68 |
| 7-A81-52 | 2-15-68 |
| 7-A84-14 | 1-3-68 |
| 7-A81-54 | 11-25-68 |
| 7-A81-53 | 7-22-68 |
| 7-A83-70 | 11-25-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 3'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD △1 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | [illegible] | LENGTH | MK | TYPE STEEL | DIA | LENGTH | [illegible] | [illegible] | MK | TYPE STEEL | SIZE | LENGTH |
| C32T38-59075 | 6 | A242 | 2"x1½"x[illegible] | [illegible] | 52'-10½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 6'-0¾"<br>40'-11[illegible] | 9K @ 3'-4" = 30'-0"<br>6K @ 3'-4" = 20'-0" | .14 | CP₂₈ | A36 | 6½"x½" | 48'-10" |

△1

COLUMN END

| Es END | TRUSS DESIGNATION | MK | TYPE STEEL | CHORD SIZE | LENGTH △3 | [illegible] | DIA | LENGTH | TYPE | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | DOUBLE STRUT MK | TYPE STEEL | DIA | LENGTH | CHORD PLATE △2 MK | TYPE STEEL | SIZE | LGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | C32T38-59075 | 9 | A242 | 2"x1½"x.37" 2 | 3 | 6'-[illegible]¼" | 1.14 | 6'-3⅛" | A242 | .14 | [illegible] | DS₁ | A242 | 1.14 | 6'-3' 6" | DS₃A | A242 | .92 | 2'-6¾" | DS₂ | A242 | .75 | 2'-4⅞" | CP₃ | A36 | 6½"x.50 | 1'-1⅞" |

△2

CORE END

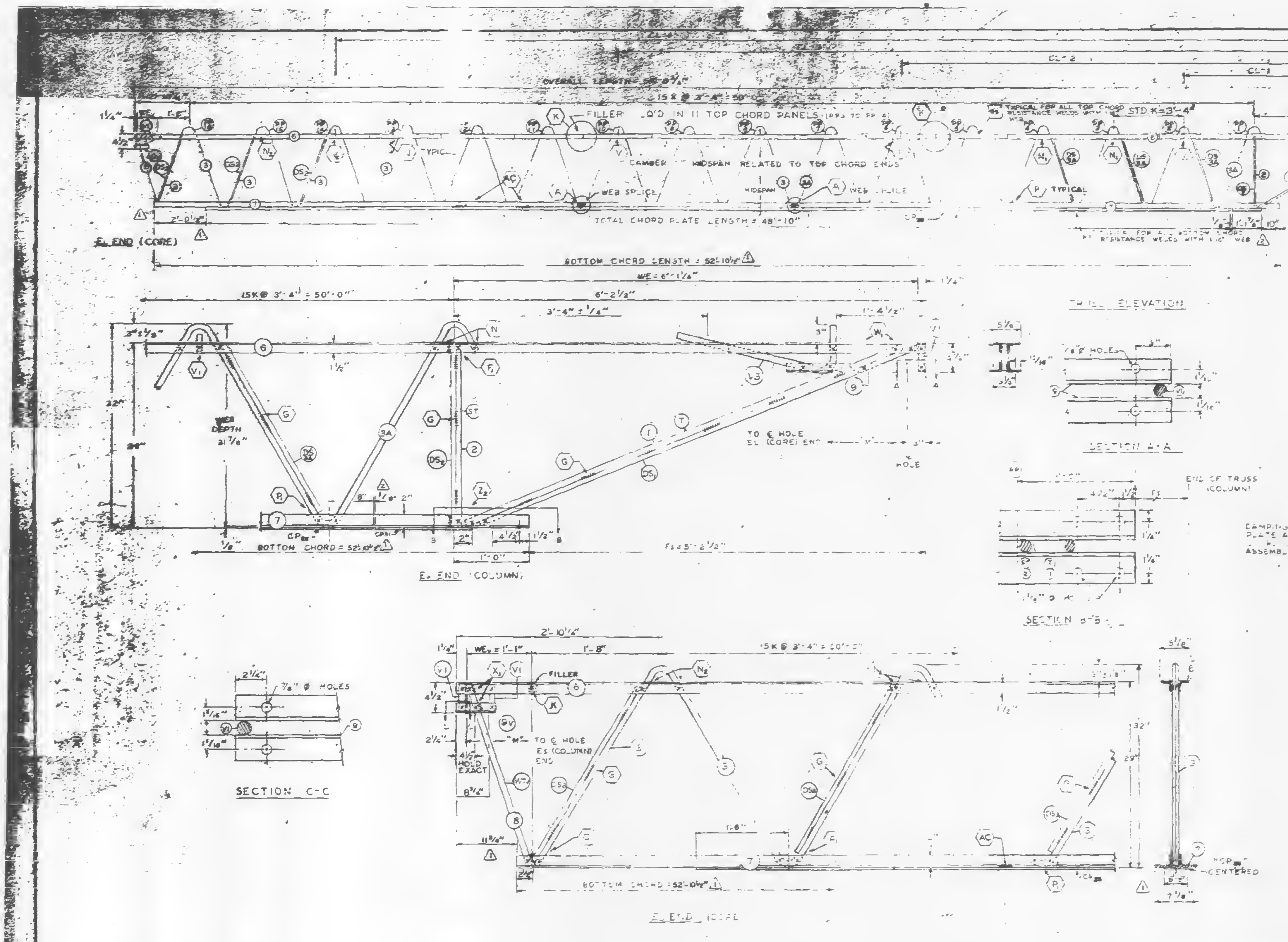
| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | END STIFFENER △4 | | | WEB "W₁v" | | WEB "W₁v" | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | [illegible] | TYPE STEEL | DIA | LENGTH | [illegible] | [illegible] | MK | TYPE STEEL | DIA | LENGTH |
| | C32T38-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS₃ | A242 | 1.14 | 2'-5¾" | [illegible] | A242 | 1.14 | [illegible]⅞" | [illegible] | [illegible] | 8 | A242 | 1.14 | [illegible] |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

[illegible] COMPANY

DESIGN DRAWING NO. 7-A81-34
James White 3/10/69
DATE JAN 21, 1969
CHECKED BY [illegible]
JAN 21, 1969
LACLEDE STEEL CO.
CONTRACT NO. 221
SHEET ST 238



DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD AT END IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES ([illegible])
ALL WELD DETAILS SHOWN ON SHEETS ST290,
ST291, ST292, ST293, AND ST287.

△2

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS & NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R-1

| FABRICATION REQUIREMENTS | | |
|---|---|---|
| | [illegible] | [illegible] |
| CAMBER AT MIDSPAN | [illegible] | [illegible] |
| DESIGN DEPTH | [illegible] | [illegible] |
| PANEL "K" | 3'-4 | ± 1/8" |
| OVERALL LENGTH | 59'-0¾" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| △2 | 2-18-69 | AS NOTED | [illegible] |
| △1 | 1-31-69 | AS NOTED | G.A.C. |

**REF. DRWG.**

| | |
|---|---|
| 7-ABI-34 | 1-5-69 |
| 7-ABI-52 | 2-15-69 |
| 7-ABI-34 | 1-5-69 |
| 7-ABI-54 | 11-26-68 |
| 7-ABI-53 | 7-22-68 |
| 7-AB2-70 | 11-26-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | △1 | MAIN WEB | | | | | | | CONNECTION FILLER | | | CHORD PLATE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | [illegible] | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | [illegible] | [illegible] | DIA. | MK. | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | [illegible] |
| C32T38-59075 | 6 | A242 | 2"x1½"x[illegible] | 59'-[illegible] | [illegible] | A36 | [illegible] | 52'-10½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 56'-0¾"<br>40-11⅞" | [illegible] | 2 | 1.14 | 4 | 1.14 | [illegible]'-3" | [illegible] | A36 | 6½"x½" | 48'-10" | [illegible] |

△1

| CHECK DIMENSION FOR TRUSS FAB. | | | | |
|---|---|---|---|---|
| LOCATION OF TRANS. TRUSS | | | | |
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | | [illegible] | | | [illegible] | | | [illegible] | | | [illegible] | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | CHORD PLATE △2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | [illegible] | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | [illegible] | [illegible] | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (3 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LGTH |
| | C32T38-59075 | 9 | A242 | 2"x1½"x.37 | 1'-10" | 6'-1¼" | A242 | 1.14 | 6'-3⅛" | A242 | 1.14 | [illegible]'-4⅞" | A242 | 1.14 | [illegible]'-4⅞" | A242 | 2" | DS1 | A242 | 1.14 | 6'-3⅛" | DS2A | A242 | .92 | 2'-6¾" | DS2 | A242 | .75 | 2'-4⅞" | CP | A36 | 6½"x.50 | 1'-1⅞" |

△2

CORE END

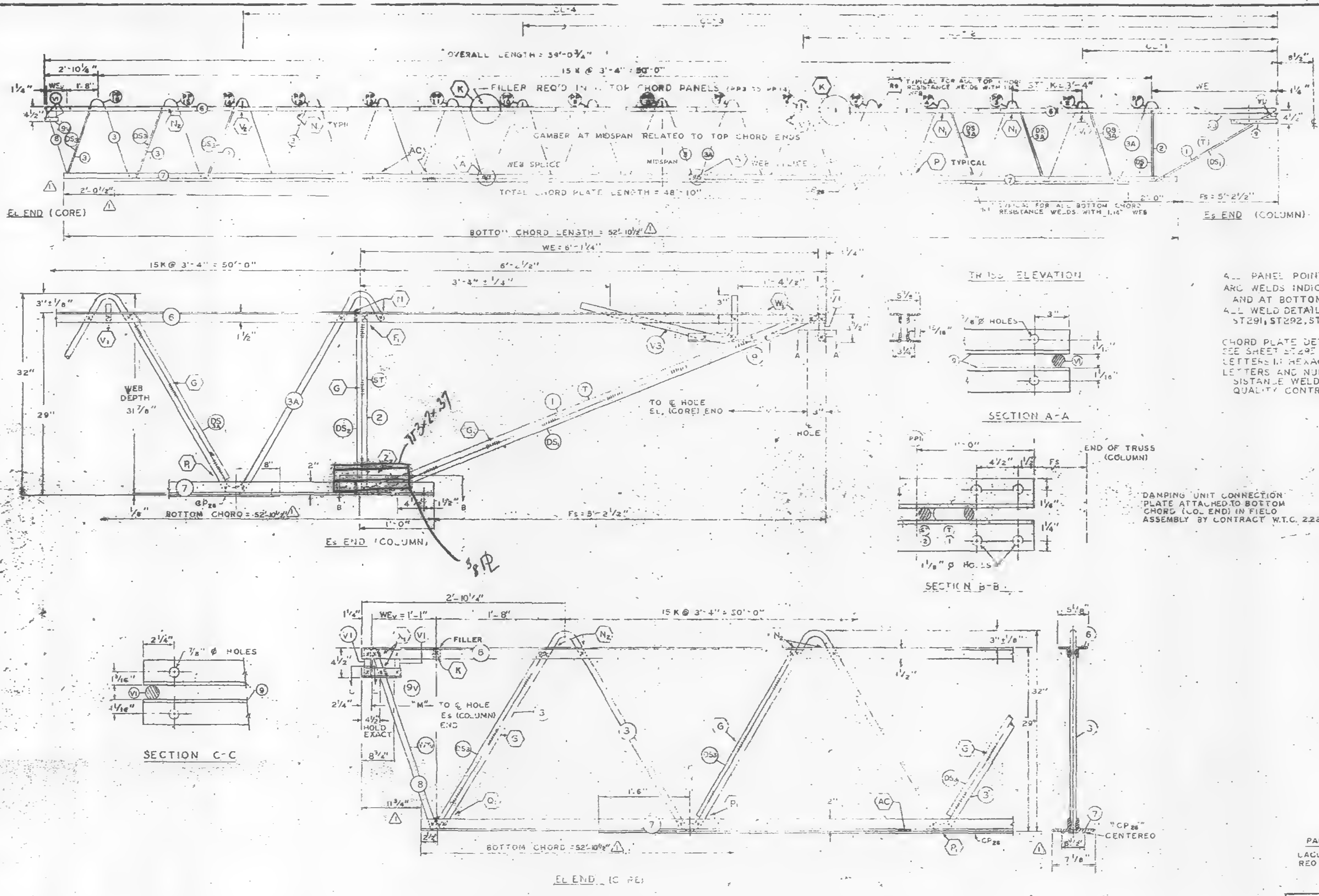
| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEV | DOUBLE STRUT | | | | DOUBLE STRUT | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH (3 REQ'D) | MK. | TYPE STEEL | DIA. LENGTH | TYPE STEEL | DIA. | LENGTH (2 REQ'D) | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | [illegible] | DIA. | LENGTH |
| | C32T38-59075 | 9V | A242 | 2"x1½"x.37 | 0'-10" | 1'-1" | DS2 | A242 | 1.14 | 2'-6¾" | — | — | — | A242 | 1.14 | 4⅞" | — | — | — | — | 8 | A242 | 1 | 1.14 | 2'-6¼" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | |
|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | DESIGN DRAWING NO. 7-ABI-34 | PLATE |
| APPROVED FOR FABRICATION FOR P.O.N.Y.A. James W. [illegible] DATE [illegible] | DRAWN BY: [illegible] DATE JAN. 21, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR DATE | CHECKED BY: T.M. CHURA DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEPT. |
| DETAILED BY LACLEDE STEEL CO. | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 238 |



ALL PANEL POINTS RESISTANCE WELDED (x)
ARC WELDS INDICATED AT SHADED AREAS
AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST288.

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST295 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, ie, ⟨A⟩
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., R-1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 228.00.

| FABRICATION REQUIREMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1/8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4 | ± 1/8" |
| OVERALL LENGTH | 5[illegible] | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/[illegible] |

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF. DRWG.

| | |
|---|---|
| 7-AB1-34 | 1-6-68 |
| 7-AB1-52 | 2-15-68 |
| 7-AB4-14 | 1-3-66 |
| 7-AB1-54 | 11-25-68 |
| 7-AB1-53 | 7-22-68 |
| 7-AB3-70 | 11-25-66 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | CONNECTION FILLER | | | CHORD PLATE | | | | "M" % HOLES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH 1 | MK | TYPE STEEL | DIA | LENGTH | NO. OF P. | MK | DIA | NO. | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | |
| C32T38-59075 | 6 | A242 | 2"x1½"x.37 | 59'-0¾" | 7 | A36 | 3"x2"x.37" | 52'-10½" | 3<br>3A | A242<br>A242 | 1.14<br>1.14 | 56'-0¾"<br>40'-11¼" | 9K @ 3'-4" = 30'-0"<br>6½K @ 3'-4" = 21'-8" | [illegible] | 1.14 | 4 | 1.14 | 3'-3" | CP26 | A36 | 6½"x½" 1 | 48'-10" | [illegible] ½" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | BEARING STIFFENER | | | | VERTICAL "ST" STRUT | | | | END FILLER MK. V1 | | | MK. V3 | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA | LENGTH |
| | C32T38-59075 | 9 | A242 | 2"x1½"x.25 37 | 1'-10" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | [illegible]-4⅞" | A242 | 1.14 | 0'-4⅜" | [illegible] | 1.14 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" | DS3A | A242 | .92 | 2'-6¾" | DS2 | A242 | .75 | 2'-4⅞" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLE | | | | WEv | DOUBLE STRUT | | | | DOUBLE STRUT | | | | END STIFFENER MK. V1 | | | WEB "WCV" | | | | | WEB "WTV" | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH (2 REQ'D) | MK | TYPE STEEL | [illegible] | DIA | LENGTH | MK | TYPE STEEL | [illegible] | DIA | LENGTH |
| | C32T38-59075 | 9V | A242 | 2"x1½"x.37" | 0'-10" | 1'-1" | DS4 | A242 | 1.14 | 2'-6¾" | — | — | — | — | A242 | 1.14 | 4⅞" | — | — | — | — | — | 8 | A242 | | 1.14 | 2'-6¾" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

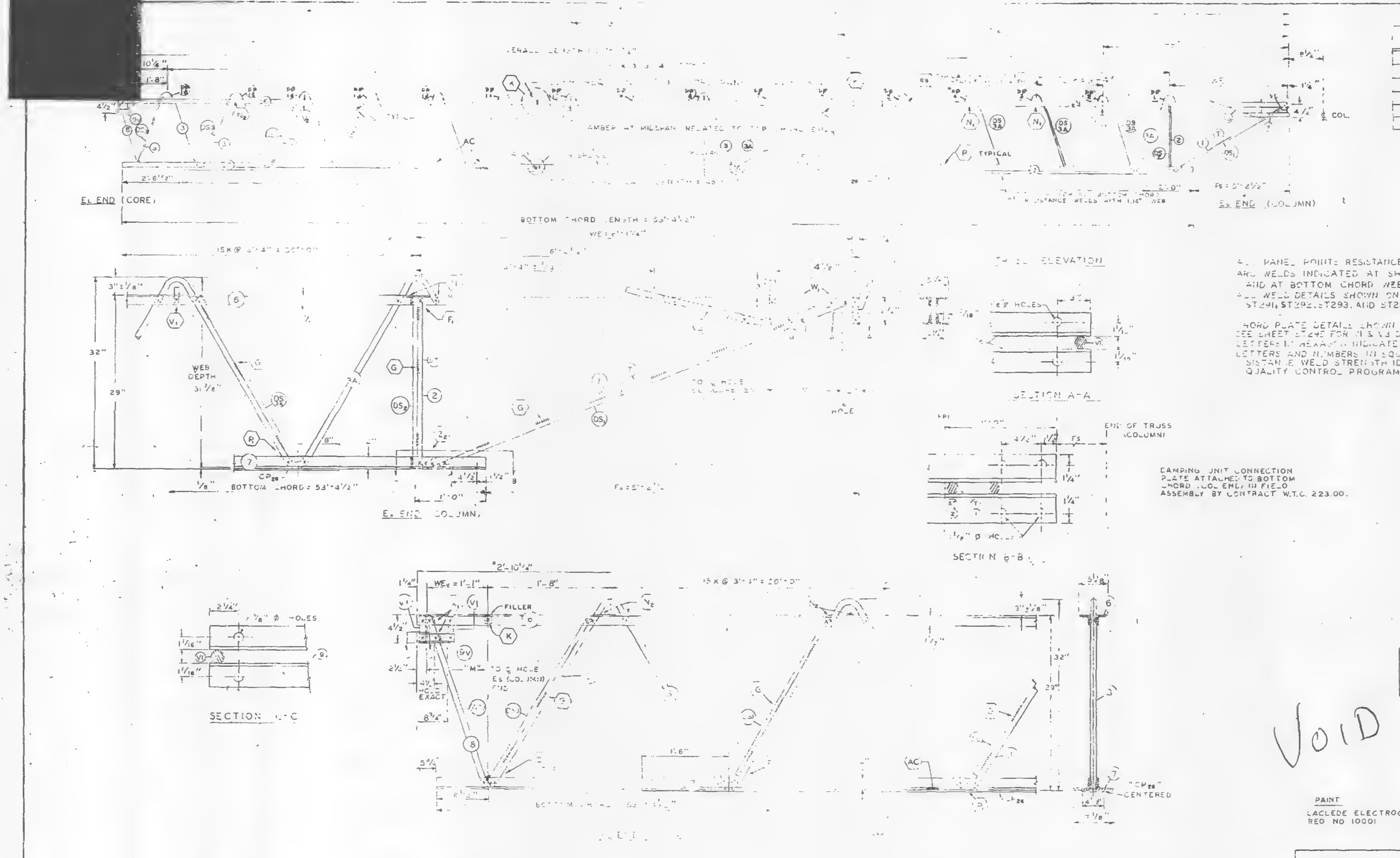
SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
☒ [illegible] AS NOTED
2/19/69 SK

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY

| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB1-34 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY Joe<br>DATE JAN 21, 1969 | |
| APPROVED FOR FABRICATION BY FOR FABRICATOR<br>LACLEDE STEEL CO. | DATE | CHECKED BY T.M.CHURA<br>DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY A. CARL WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST 238 |



## FABRICATION REQUIREMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2 1 8" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/ |
| PANEL K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-0¾ | ± 3/8" |
| WEB DEPTH | 31 | ± 1/4 |

ALL PANEL POINTS RESISTANCE WELDED (3) ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES (▨)
ALL WELD DETAILS SHOWN ON SHEETS ST290, ST291, ST292, ST293, AND ST288.

CHORD PLATE DETAILS SHOWN ON SHEET ST288.
SEE SHEET ST245 FOR V1 & V3 DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS, i.e. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e. R-1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD ASSEMBLY BY CONTRACT W.T.C. 223.00.

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

VOID

**REF. DRWG.**

| | |
|---|---|
| 7-A81-34 | 1-8-68 |
| 7-A81-52 | 2-15-68 |
| 7-A84-14 | 1-3-68 |
| 7-A81-54 | 11-25-68 |
| 7-A81-5[illegible] | [illegible]-22-68 |
| 7-A83-70 | 11-25-68 |

**PAINT**
LACLEDE ELECTROCOAT
RED NO 10001

CHECK DIMENSION FOR TRUSS FAB.

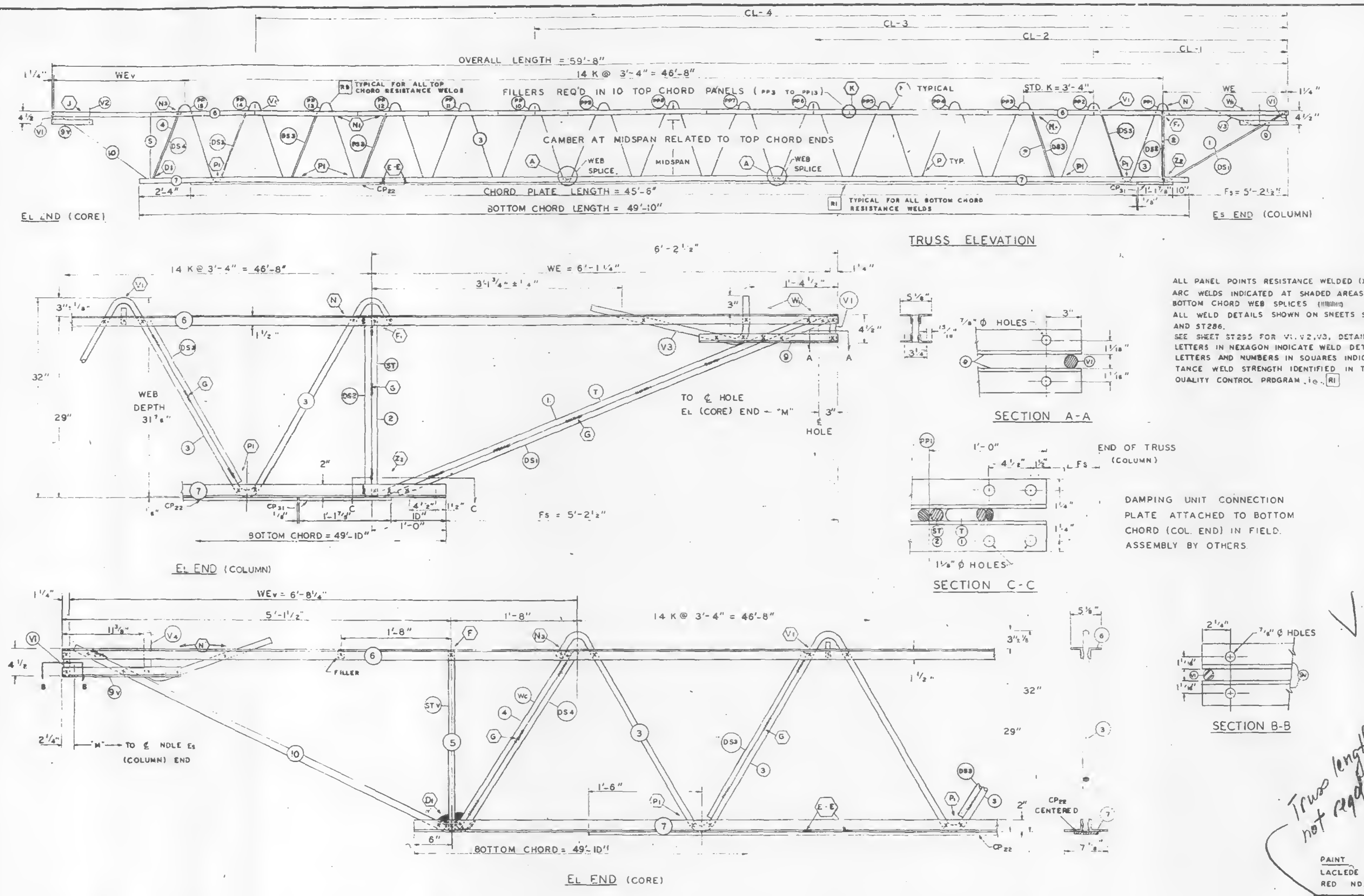
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

| DOUBLE STRUT | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MK | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH (3 REQ'D) | MK | TYPE STEEL | DIA. | LENGTH |
| $DS_1$ | A242 | 1.14 | 6'-3⅛" | $DS_{3A}$ | A242 | .92 | 2'-6¾" | $DS_2$ | A242 | .75 | 2'-4⅞" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T38 - 59'-0¾" OVERALL
WORLD TRADE CENTER TOWERS A-B

FABRICATION BY LACLEDE STEEL COMPANY
FABRICATED AT MADISON, ILLINOIS
DESIGN DRAWING NO. 7-A81-34
DRAWN BY der
DATE JAN 21, 1969
CHECKED BY
DATE JAN 21, 1969
FABRICATION CONT. NO. 221
DETAILED BY A. CARL WEBER
SHEET ST 238
LACLEDE STEEL CO



ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, ie., RI

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS

FABRICATION REQUIRMENTS

| | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTN | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTN | 59'-8" | ± 3/8" |
| WEB DEPTN | 31 7/8" | ± 1/4" |

VOID

SKILLING · HELLE
CHRISTIANSEN · ROBERTSON
Structural & Civil Engineers
6/4/69 SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

REF DRWG.

| | |
|---|---|
| 7-AB1-35 | 1-6-67 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-35 | 7-22-68 |

Truss length not req'd

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTN | MK. | TYPE STEEL | CHORD SIZE | LENGTN | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTN | MK | TYPE STEEL | SIZE | LENGTN | MK | TYPE STEEL | DIA | LENGTN | MK. | TYPE STEEL | SIZE | LENGTN |
| C32T39C 598 | 6 | A242 | 2"x1½"x37 | 59'-8" | 7 | A36 | 3"x2"x37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 59'-2¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x½" | 45'-6" | DS2 | A242 | .75 | 2'-4' | CP31 | A36 | 6½"x½" | 1'-1⅞" |

COLUM END

| Es END | TRUSS DESIGNATIO | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTN | | MK | TYPE STEEL | DIA | LENGTN | MK | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | 2T39C-598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 5'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3½" |

CHECK DIMENSION FOR TRUSS FAB.

| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | -2½" |

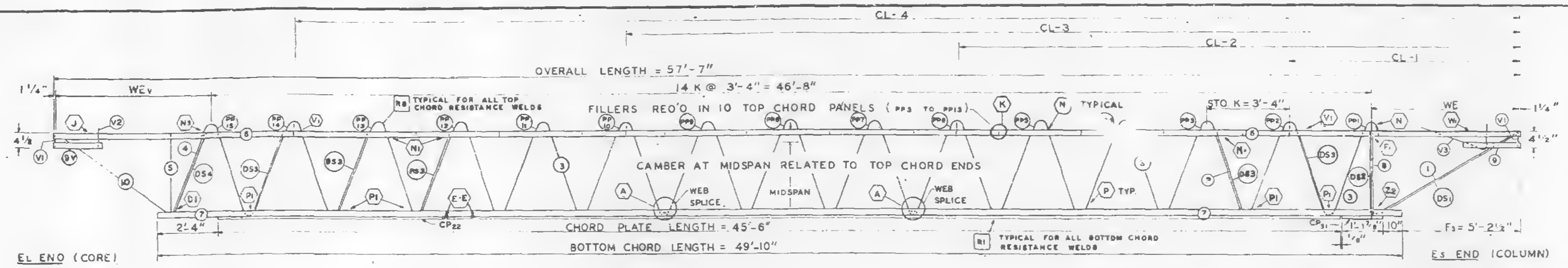
CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (5) DOUBLE (REQD) ST | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTN | MK. | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTN | MK | TYPE STEEL | | LENGTH |
| | C32T39C-598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8¼ | 10 | A242 | 1.14 | 5'-5½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | — | — | — | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2'-0" | 4 | A242 | .75 | 2'-9½" | — | — | — | — | DS3 | A242 | .92 | 2'-6¾" |

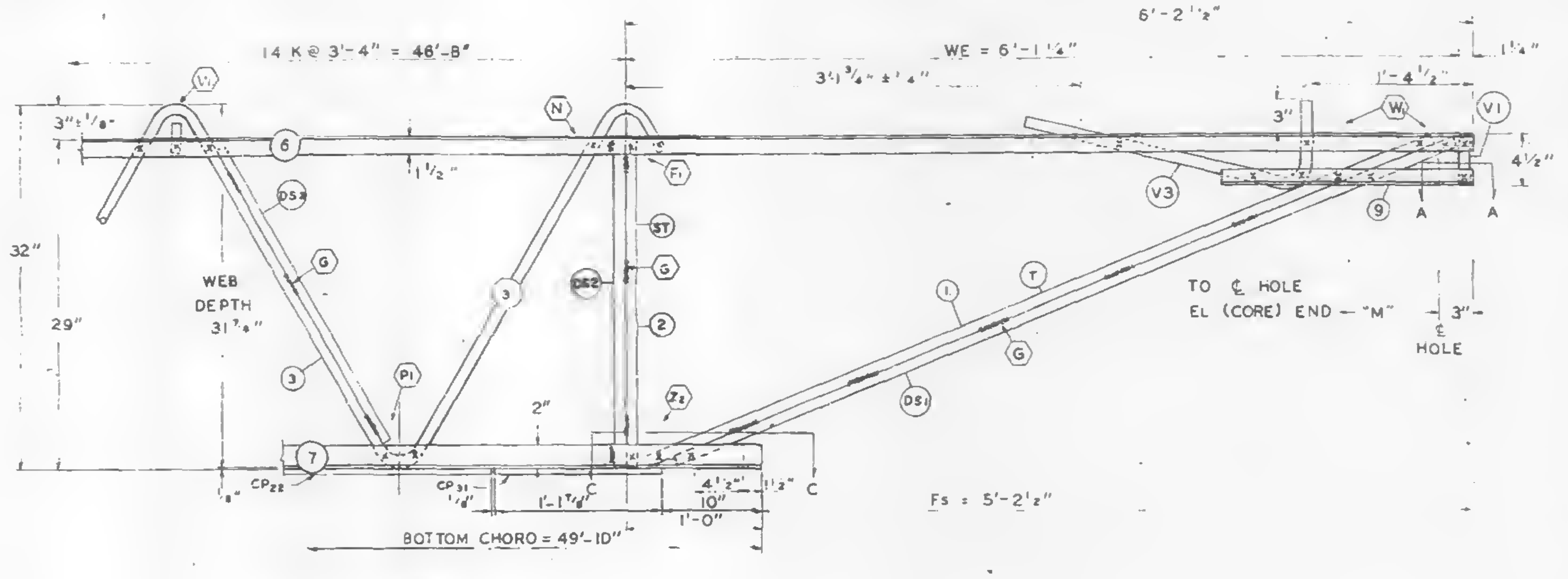
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T39C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

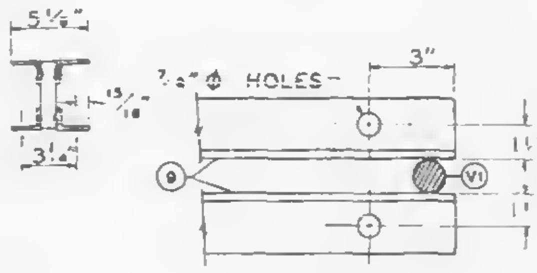
FABRICATION BY: LACLEDE STEEL COMPANY
FABRICATED AT: MADISON, ILLINOIS
DESIGN DRAWING NO. 7-AB1-35
PLATE
APPROVED FOR FABRICATION BY: FOR P.O.N.Y.A. DATE
DRAWN BY:
DATE: MAY 6, 1969
APPROVED FOR FABRICATION BY: FOR FABRICATOR DATE.
LACLEDE STEEL CO.
CHECKED BY: T.H.
DATE: MAY 6, 1969
IN CHARGE OF PROD. DEV.
DETAILED BY: A.C. WEBER
FABRICATION CONT. NO. W.T.C. 221
SHEET NO. ST239C


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-7"
14 K @ 3'-4" = 46'-8"
1¼"
WEv
4½"
R8 TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
K
N TYPICAL
5TO K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP.
2'-4"
CP22
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP31
1'-1⅞"
10"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

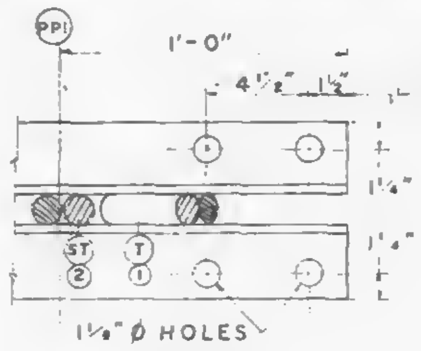


EL END (COLUMN)



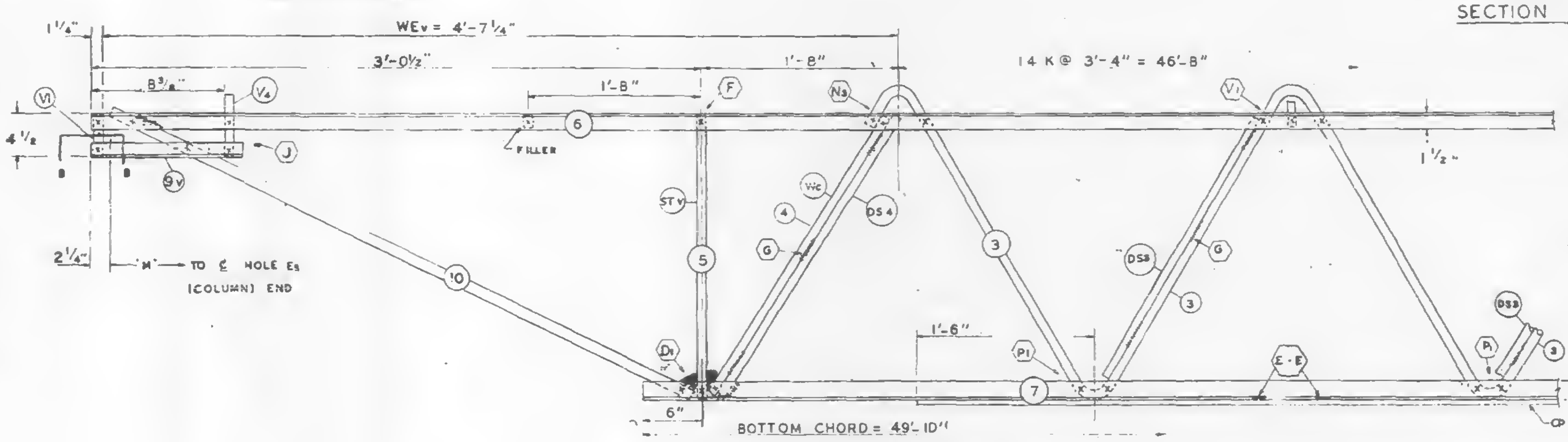
SECTION A-A

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 _ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS i.e., A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM, i.e., R1

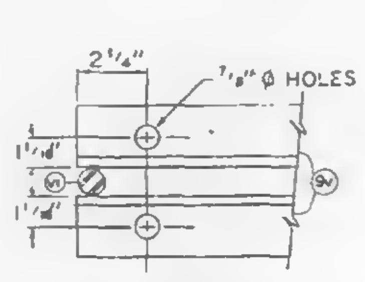


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

VOID

Truss length not req'd

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-7" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

SKILLING - HELLE
CHRISTIANSEN - ROBERTSON
Structural & Civil Engineers
APPROVED AS NOTED
6/4/69 SK

| NO. | DATE | REVISION | BY |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

| REF DRWG. |  |
|---|---|
| 7-AB1-35 | 1-8-67 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES |  |  |  | BOTTOM CHORD TWO ANGLES |  |  |  | MAIN WEB "W" |  |  |  |  | FILLER |  | "M" C/C HOLES | CONNECTION FILLERS |  |  | CHORD PLATE |  |  |  | DOUBLE STRUT |  |  |  | CHORD PLATE |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. |  | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T39P 577 | 6 | A242 | 2"x1½"x.37 | 57'-7" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-1¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x½" | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" | CP31 | A36 | 6½"x½" | 1'-1⅞" |

COLUMN END

| Es END TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WE | DIAGONAL "T" STRUT |  |  |  | VERTICAL "ST" STRUT |  |  |  | END STIFFENER MK. V1 |  |  | END STIFFENER MK. V3 |  |  | DOUBLE STRUT |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK. | TYPE STEEL | CHORD SIZE | LENGTH |  | MK | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| C32T39P 577 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS |  |  |  |  |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | S |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2¼" |

CORE END

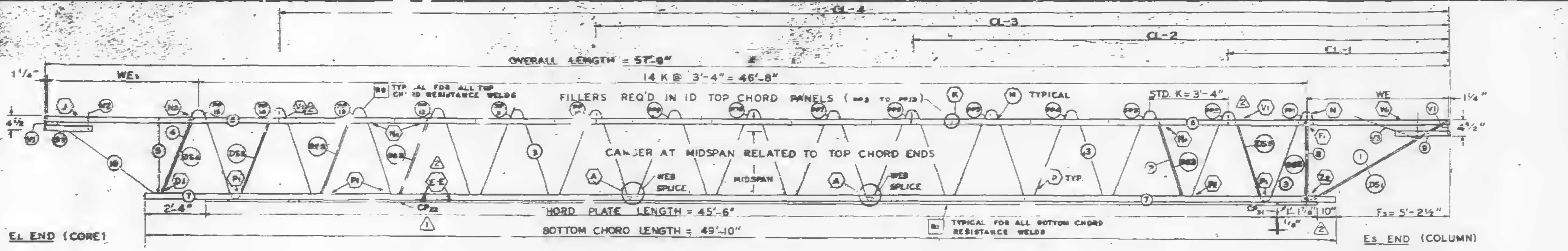
| EL END TRUSS DESIGNATION | BEARING ANGLES |  |  |  | WEv | DIAGONAL "Tv" STRUT |  |  |  | VERTICAL "STv" STRUT |  |  |  | END STIFFENER MK. V1 |  |  | END STIFFENER MK. V2 |  |  | END STIFFENER MK. V4 |  |  | WEB "Wc" |  |  |  |  | DOUBLE STRUT |  |  |  | DOUBLE STRUT |  |  |  | (5) DOUBLE (REQD) |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | MK. | TYPE STEEL | CHORD SIZE | LENGTH |  | MK. | TYPE STEEL | DIA | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | K | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T39P 577 | 9 | A242 | 2"x1½"x.37 | 10¼" | 4'-7¼" | 10 | A242 | 1.14 | 3'-8½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9 |  | A242 | .75 | 2'-9½" | — | — | — | — | DS3 | A242 | .92 | 2'-5¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T39P 57'-7" OVERALL
WORLD TRADE CENTER TOWERS A & B

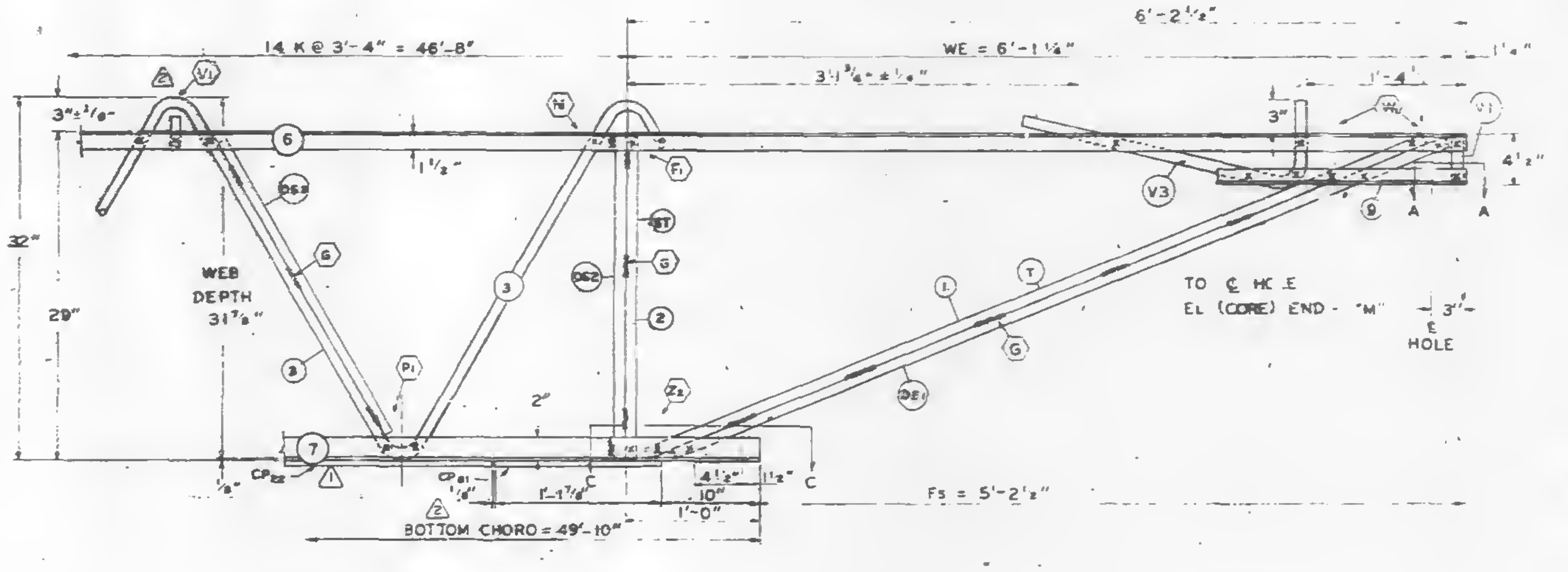
FABRICATION BY: LACLEDE STEEL COMPANY

|  |  |  |  |
|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS |  | DESIGN DRAWING NO. 7-AB1-35 | PLATE |
| APPROVED FOR FABRICATION BY: ______ FOR P.O.N.Y.A. | DATE | DRAWN BY: L.E.P. DATE: MAY 6, 1969 |  |
| APPROVED FOR FABRICATION BY: ______ FOR FABRICATOR | DATE. | CHECKED BY: T.M.CHUNG DATE: MAY 6, 1969 | IN CHARGE OF PROD. DEV. |
| DETAILED BY: ALLIED STEEL |  | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST239P |

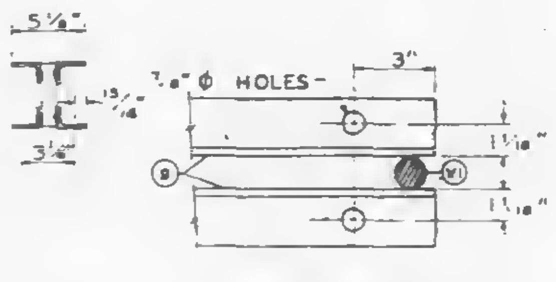

CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEc
FILLERS REQ'D IN 10 TOP CHORD PANELS
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP.
2'-4"
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

## TRUSS ELEVATION

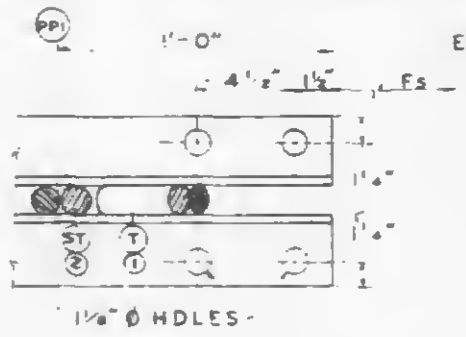
| FABRICATION REQUIREMENTS | | |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 4" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |



EL END (COLUMN)



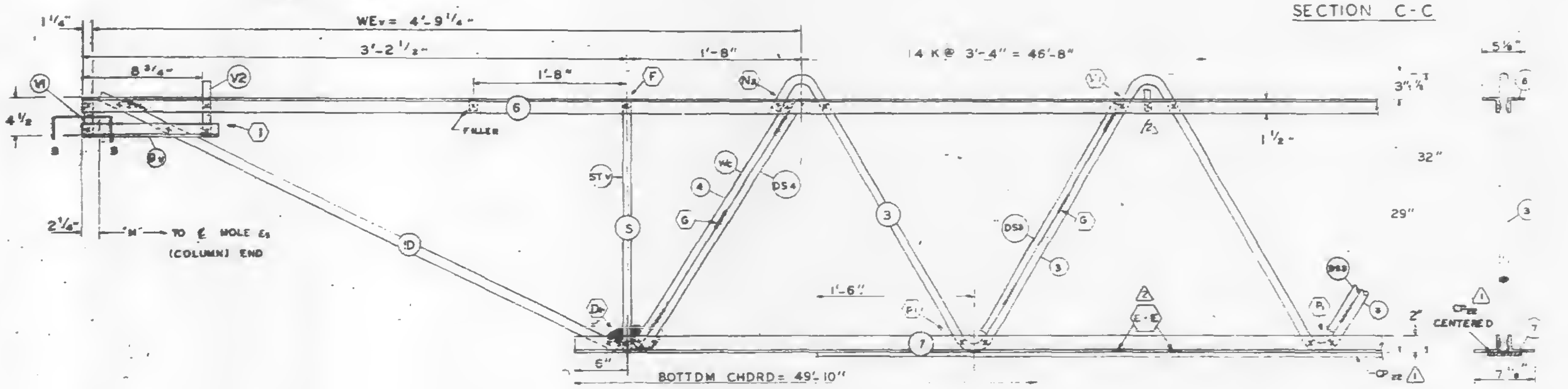
SECTION A-A



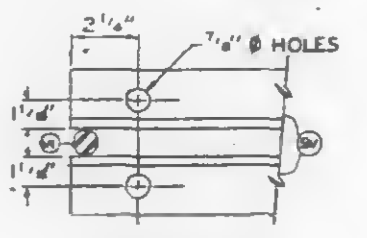
SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST286. △2
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS . ie., Ⓐ
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM . ie., R1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL. END) IN FIELD. ASSEMBLY BY OTHERS



EL END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 2 | 2-18-69 | WELD DETAILS ... BEARING ANGLE SIZE | L.J.H. |
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF DRWG.

| | |
|---|---|
| 7-AB1-35 | 1-8-67 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-38 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS △2 | | | CHORD PLATE | | | | DOUBLE STRUT | | | | CHORD PLATE △2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | CHORD SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | NO. OF K | NO. | DIA. | | NO | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | SIZE | LENGTH |
| C32T39N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x½" △1 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" | CP31 | A36 | 6½"x½" | 1'-1⅞" |

| | | TRUSS DESIGNATION | BEARING ANGLES △2 | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. | | | | | | |
| COLUMN END | Es END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LGTH. |
| | | C32T39N-579 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅜" | A242 | 1.14 | 4⅜" | A242 | .4 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

CHECK DIMENSION FOR TRUSS FAB.

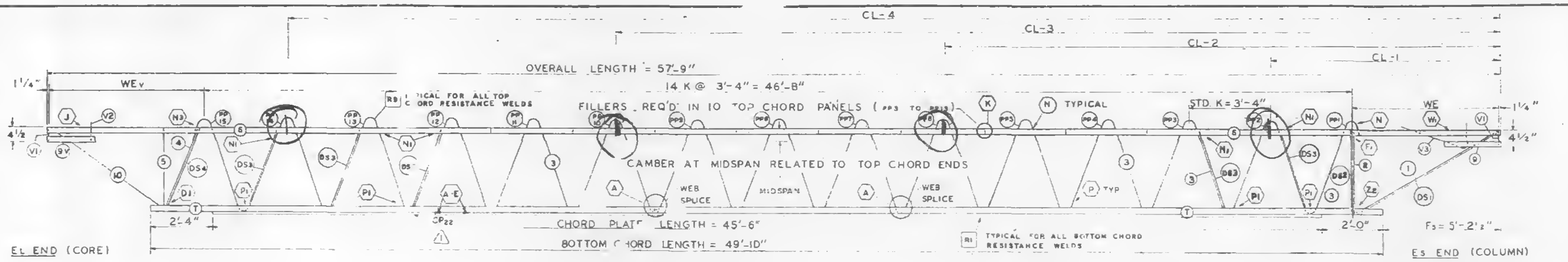
| LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 45'-6½" | 5'-2½" |

| | | TRUSS DESIGNATION | BEARING ANGLES △2 | | | | WEv | DIAGONAL "Tv" STRUT △2 | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (5) (REQD) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | MK. V1 | | | MK. V2 | | | MK. V4 | | | | | | | | | | | | | | | | | | | |
| CORE END | EL END | | MK. | TYPE STEEL | CHORD SIZE | LENGTH | | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | PCS | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH | MK. | TYPE STEEL | DIA. | LENGTH |
| | | C32T39N-579 | 9 | A242 | 2"x1½"x.37 | 10" | 4'-9¼" | 10 | A242 | 1.14 | 3'-10" | 5 | A242 | 1.14 | 2'-4⅝" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .75 | 2'-9½" | — | — | — | — | DS3 | A242 | .92 | 2'-8¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N. Y. C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T39N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

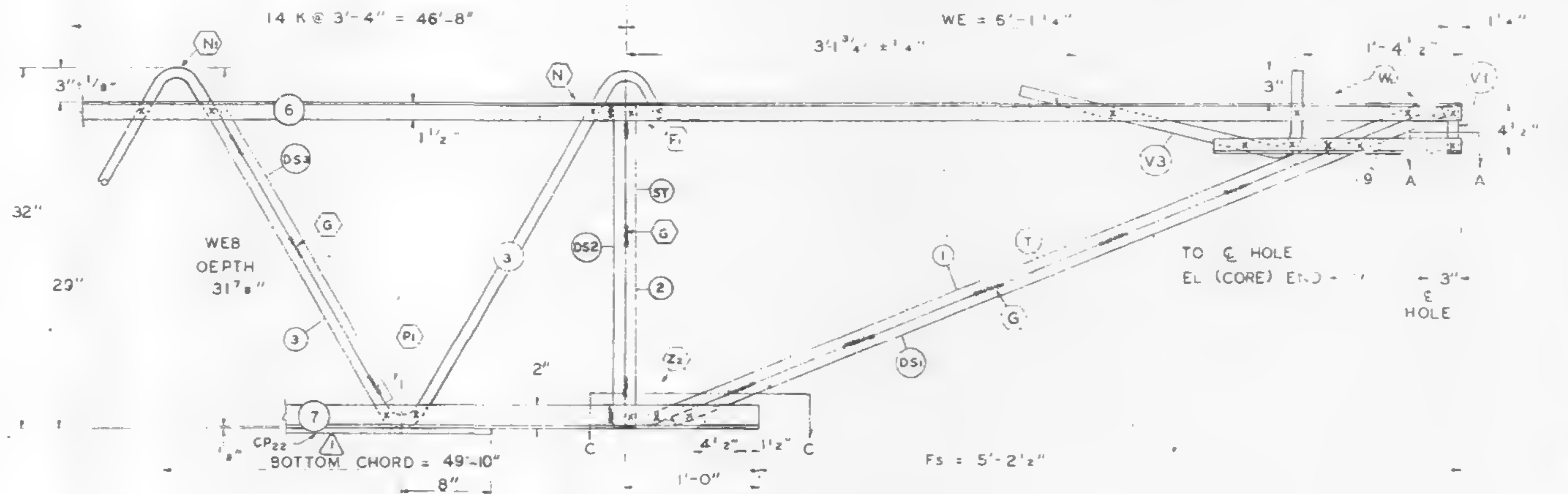
| | | | |
|---|---|---|---|
| FABRICATION BY: LACLEDE STEEL COMPANY | | | |
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB-35 | PLATE |
| APPROVED FOR FABRICATION BY [illegible] FOR P.O.N.Y.A. | DATE [illegible] | DRAWN BY: [illegible]<br>DATE: JAN 20 1969 | |
| APPROVED FOR FABRICATION BY. FOR FABRICATOR | DATE. | CHECKED BY: [illegible]<br>DATE: JAN. 21, 1969 | IN CHARGE OF PROD. REV. |
| DETAILED: LACLEDE STEEL CO. | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST23[illegible]N |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
WEv
1¼"
4½"
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS
N TYPICAL
STD K = 3'-4"
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
P TYP
2'-4"
2'-0"
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
Fs = 5'-2½"
El END (CORE)
Es END (COLUMN)

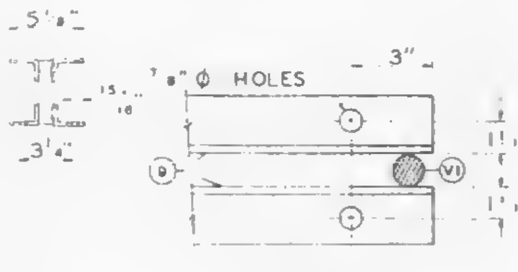
TRUSS ELEVATION

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 57'-9" | ± 3/8" |
| WEB DEPTH | 31⅞" | ± 1/4" |

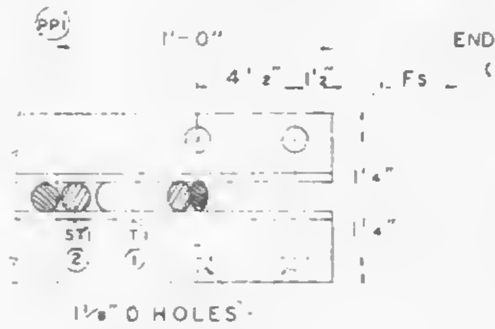
ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 – ST294 AND ST289.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. (A)
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM i.e. [RI]



Es END (COLUMN)

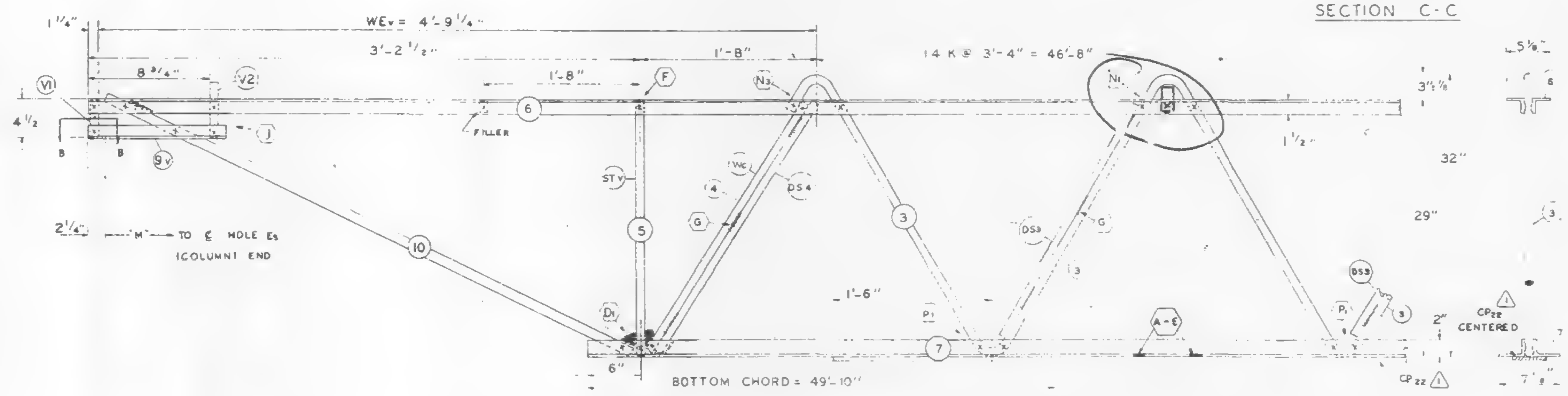


SECTION A-A

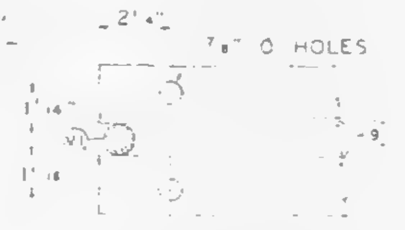


SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS



El END (CORE)



SECTION B-B

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1 | 1-31-69 | AS NOTED | G.D.C. |

REF DRWG

| | |
|---|---|
| 7-AB1-35 | 1-8-67 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO 1DD01

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES .37 | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T39N-579 | 6 | A242 | 2"x1½"x37 | 57'-9" | 7 | A36 | 3"x2"x37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | 4 | [illegible] | 4 | CP22 | A36 | 6½"x½" | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

| COLUMN END | Es END | TRUSS DESIGNATION | BEARING ANGLES .37 | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | | C32T39N-579 | 9 | A242 | 2"x1½"x25 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

| CORE END | El END | TRUSS DESIGNATION | BEARING ANGLES .37 | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | E STIFFENER MK V1 | | | E STIFFENER MK V2 | | | E STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (5) (REQD) DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTN | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTN | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTN |
| | | C32T39N-579 | 9 | A242 | 2"x1½"x25 | 10" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7⅜" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .75 | 2'-9½" | — | — | — | — | DS3 | A242 | .92 | 2'-6¾" |

⚠1 CHECK DIMENSION FOR TRUSS FAB

| LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

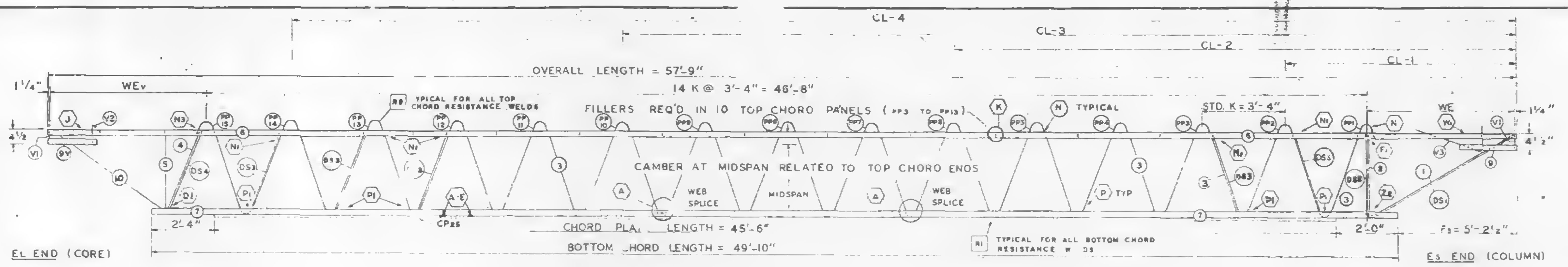
X

2/9/69 SK

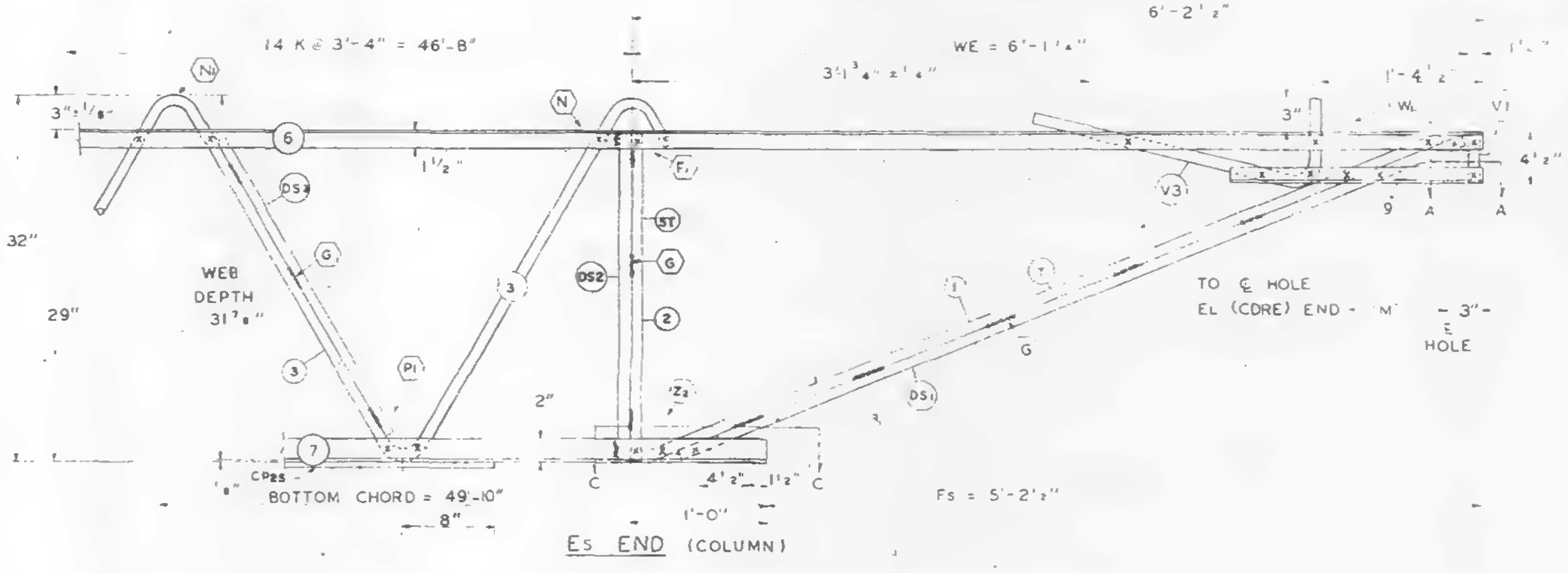
STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T39N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

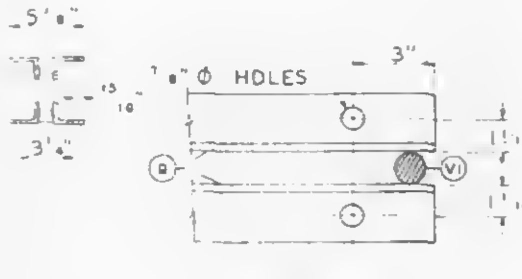
| | | | |
|---|---|---|---|
| FABRICATION BY LACLEDE STEEL COMPANY | | | |
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-35 | PLATE |
| APPROVED FOR FABRICATION BY FOR PONYA | DATE | DRAWN BY [illegible] DATE JAN 20 1969 | |
| APPROVED FOR FABRICATION BY A C WEBER FOR FABRICATOR | DATE | CHECKED BY T.N.CHURA DATE JAN. 21, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO. DETAILED BY A C WEBER | | FABRICATION CONT NO WTC 221 | SHEET NO ST239N |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 57'-9"
14 K @ 3'-4" = 46'-8"
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
STD K = 3'-4"
TYPICAL
WEv
WE
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
WEB SPLICE
MIDSPAN
WEB SPLICE
P TYP
CHORD PLA. LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
TYPICAL FOR ALL BOTTOM CHORD RESISTANCE W DS
2'-4"
2'-0"
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

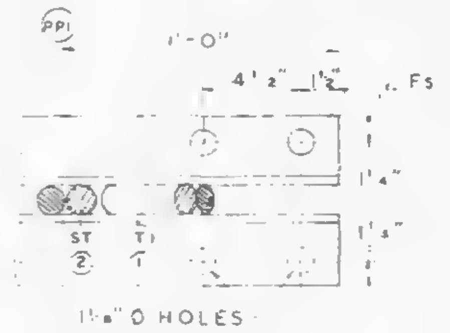
## TRUSS ELEVATION



## Es END (COLUMN)



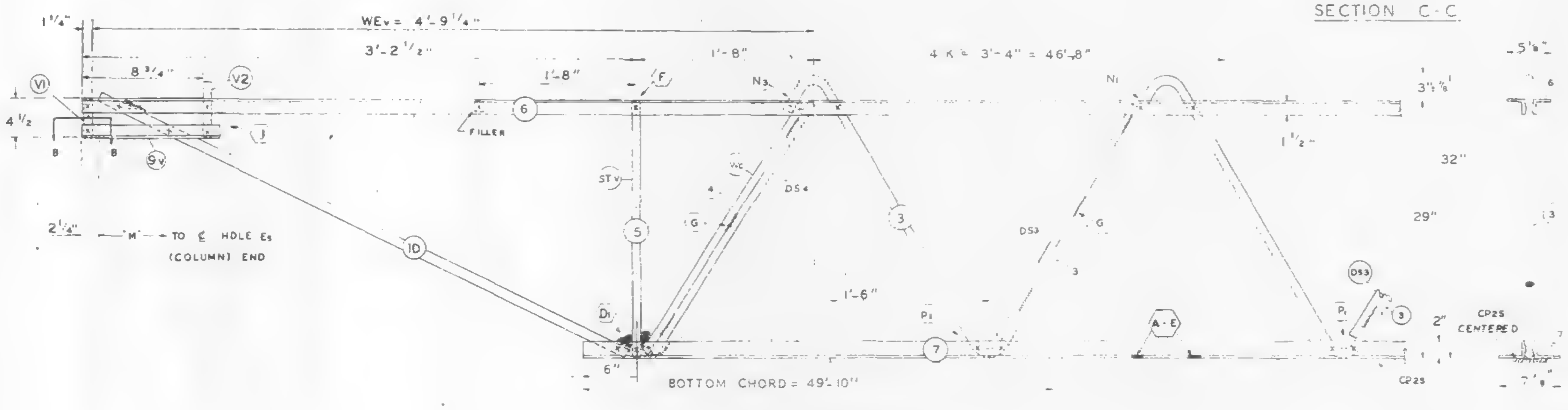
## SECTION A-A



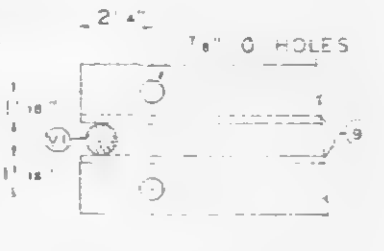
## SECTION C-C

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST290 - ST294 AND ST289.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS ie. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM ie., R1

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS



## EL END (CORE)



## SECTION B-B

| FABRICATION REQUIRMENTS | DESIGN | TOLERANCE |
|---|---|---|
| CAMBER AT MIDSPAN | 2" | ±.3 9" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 5" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4 |

Void

| REF DRWG. | |
|---|---|
| 7-AB1-35 | 1-6-67 |
| 7-AB4-50 | 8-1-68 |
| 7-AB3-41 | 1-6-69 |
| 7-AB1-53 | 7-22-68 |

PAINT
LACLEDE ELECTROCOAT
RED NO. 10001

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C-C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO OF K | NO | DIA | | NO | DIA | LENGTH | MK | TYPE STEEL | SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| C32T39N-579 | 6 | A242 | 2"x1½"x.37 | 57'-9" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 1.14 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 1.14 | 57'-3¾" | — | — | — | CP25 | A36 | 6"x.375 | 45'-6" | DS2 | A242 | .75 | 2'-4⅞" |

COLUMN END

| Es END | TRUSS DESIGNATION | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V3 | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T39N-579 | 9 | A242 | 2"x1½"x.25 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 1.14 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

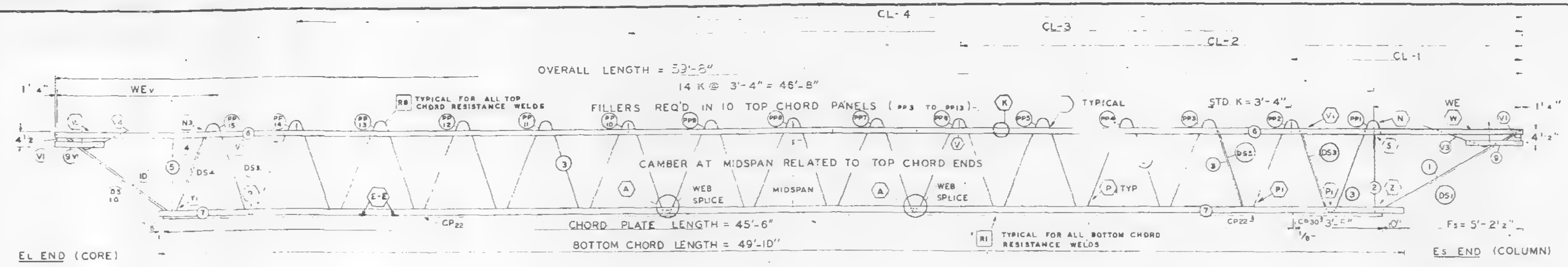
| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER MK V1 | | | END STIFFENER MK V2 | | | END STIFFENER MK V4 | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (5) DOUBLE (REQD) STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | PCS | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T39N-579 | 9 | A242 | 2"x1½"x.25 | 10" | 4'-9¼" | 10 | A242 | 1.14 | 3'-7⅜" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜" | A242 | 1.14 | 7⅜" | — | — | — | 4 | A242 | 1 | 1.14 | 2'-9½" | DS4 | A242 | .75 | 2'-9½" | — | — | - | — | DS3 | A242 | .92 | 2'-6¾" |

STEEL TRUSS DETAILS
FOR
WORLD TRADE CENTER - N Y C
FOR
THE PORT OF NEW YORK AUTHORITY

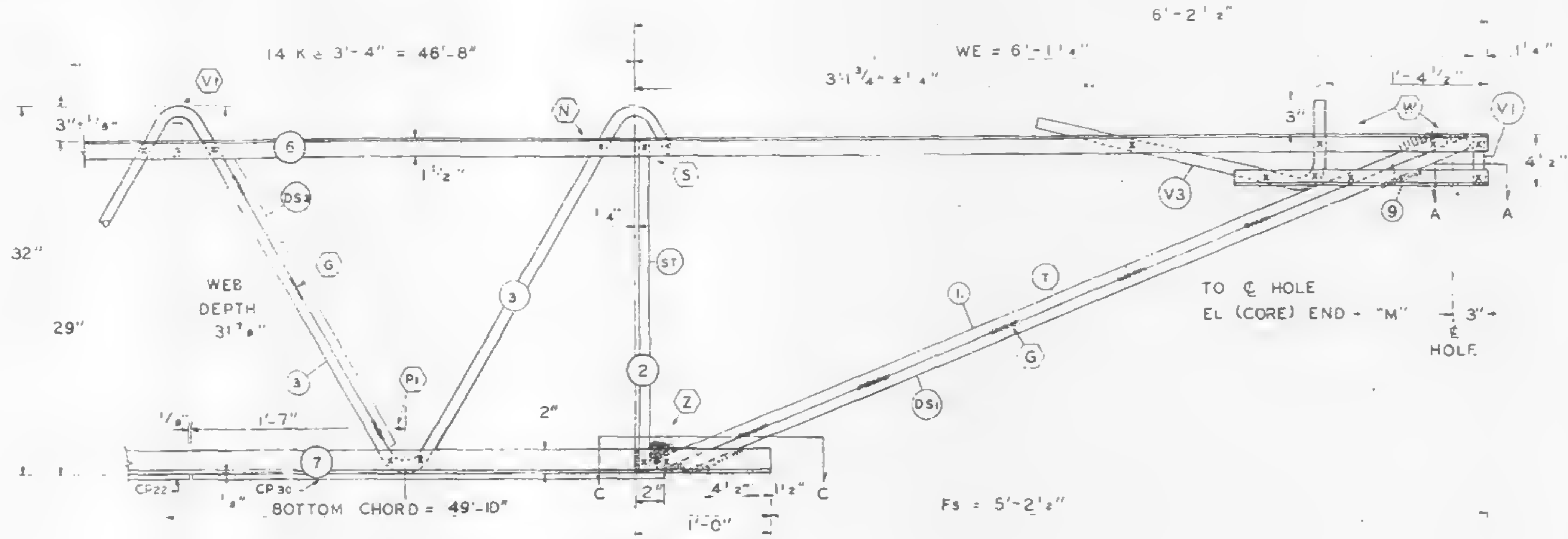
FLOOR TRUSS C32T39N 57'-9" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

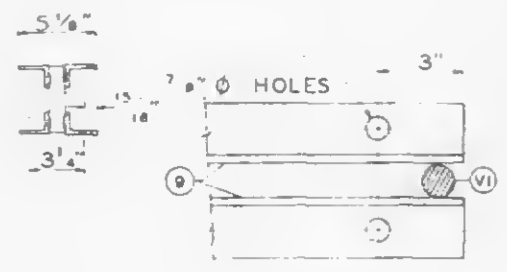
| | | | |
|---|---|---|---|
| FABRICATED AT MADISON, ILLINOIS | | DESIGN DRAWING NO 7-AB1-35 | PLATE |
| APPROVED FOR FABRICATION BY FOR P.O.N.Y.A. | DATE | DRAWN BY L.R. DATE JAN 20 1969 | |
| APPROVED FOR FABRICATION BY A.C. WEBER FOR FABRICATOR" | DATE | CHECKED BY T.M.CHURA DATE JAN. 21, 1969 | IN CHARGE OF PROD DEV |
| DETAILED BY A C WEBER | | FABRICATION CONT NO W T C 221 | SHEET NO ST239N |


CL-4
CL-3
CL-2
CL-1
OVERALL LENGTH = 59'-8"
14 K @ 3'-4" = 46'-8"
WEv
1'-4"
4½"
RB TYPICAL FOR ALL TOP CHORD RESISTANCE WELDS
FILLERS REQ'D IN 10 TOP CHORD PANELS (PP3 TO PP13)
K
TYPICAL
STD K = 3'-4"
WE
1'-4"
4½"
CAMBER AT MIDSPAN RELATED TO TOP CHORD ENDS
A
WEB SPLICE
MIDSPAN
A
WEB SPLICE
P TYP
DS4
DS3
DS5
DS1
E-E
CP22
CHORD PLATE LENGTH = 45'-6"
BOTTOM CHORD LENGTH = 49'-10"
R1 TYPICAL FOR ALL BOTTOM CHORD RESISTANCE WELDS
CP30
Fs = 5'-2½"
EL END (CORE)
Es END (COLUMN)

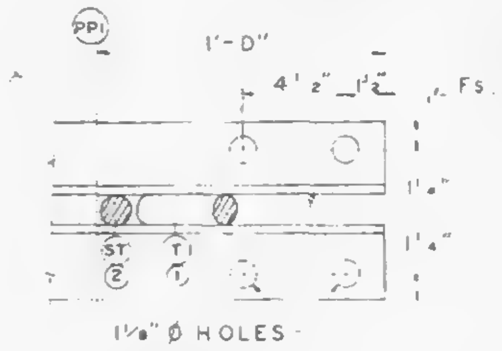
## TRUSS ELEVATION



## Es END (COLUMN)

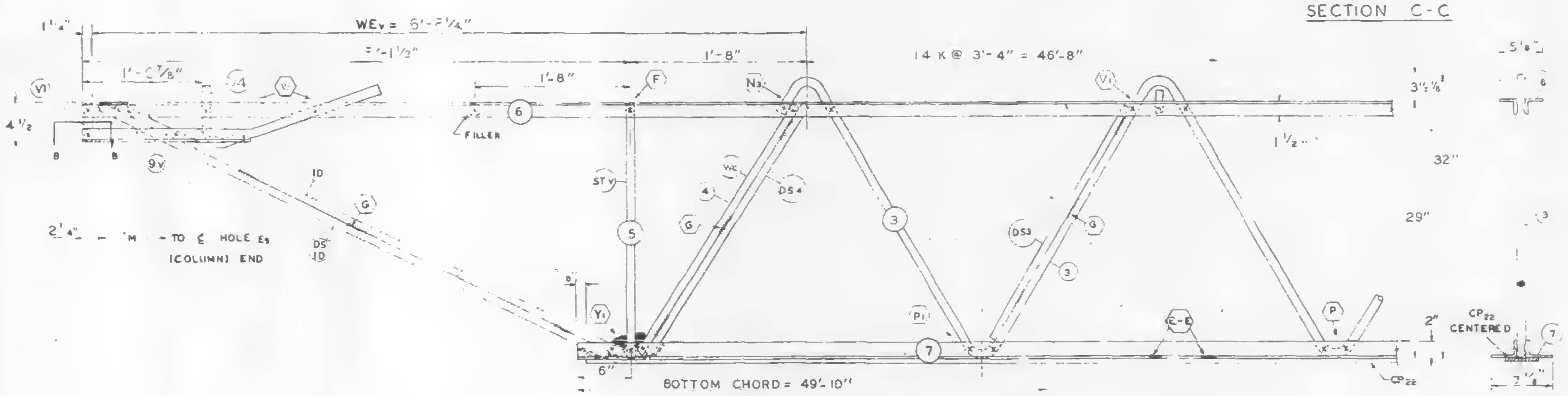


## SECTION A-A

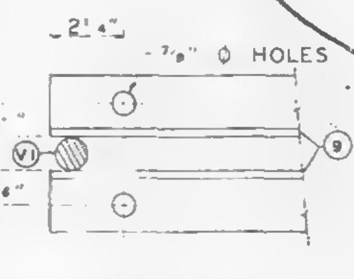


## SECTION C-C

DAMPING UNIT CONNECTION PLATE ATTACHED TO BOTTOM CHORD (COL END) IN FIELD ASSEMBLY BY OTHERS



## EL END (CORE)



## SECTION B-B

ALL PANEL POINTS RESISTANCE WELDED (X)
ARC WELDS INDICATED AT SHADED AREAS AND AT BOTTOM CHORD WEB SPLICES
ALL WELD DETAILS SHOWN ON SHEETS ST29D - ST294 AND ST286.
SEE SHEET ST295 FOR V1, V2, V3, DETAILS
LETTERS IN HEXAGON INDICATE WELD DETAILS i.e. A
LETTERS AND NUMBERS IN SQUARES INDICATE RESISTANCE WELD STRENGTH IDENTIFIED IN THE QUALITY CONTROL PROGRAM i.e. R1

| FABRICATION REQUIRMENTS | | |
|---|---|---|
| | DESIGN | TOLERANCE |
| CAMBER AT MIDSPAN | 2 | ± 3/8" |
| DESIGN DEPTH | 29" | ± 1/4" |
| PANEL "K" | 3'-4" | ± 1/4" |
| OVERALL LENGTH | 59'-8" | ± 3/8" |
| WEB DEPTH | 31 7/8" | ± 1/4" |

VOID

0 4 69 SK

| ND. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

Truss length not reqd

REF DRWG.
7-AB1-28 1-6-69
7-AB4-3D 8-1-68
7-AB3-41 1-6-69
7-AB1-53 7-22-68

| TRUSS DESIGNATION | TOP CHORD TWO ANGLES | | | | BOTTOM CHORD TWO ANGLES | | | | MAIN WEB "W" | | | | | FILLER | | "M" C/C HOLES | CONNECTION FILLERS | | | CHORD PLATE | | | | CHORD PLATE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | CHORD SIZE | LENGTH | MK | TYPE STEEL | DIA | LENGTH | NO. OF K | NO | DIA | | NO | DIA. | LENGTH | MK | TYPE STEEL | SIZE | LENGTN | MK | TYPE STEEL | SIZE | LENGTH |
| C32T40C 598 | 6 | A242 | 2"x1½"x.37 | 59'-3" | 7 | A36 | 3"x2"x.37 | 49'-10" | 3 | A242 | 114 | 88'-1¼" | 14 @ 3'-4" = 46'-8" | 11 | 114 | 5'-2¾" | 4 | 1.14 | 3" | CP22 | A36 | 6½"x½" | 45'-6" | CP30 | A36 | 6½x.50 | 3'-5" |

COLUMN END

| Es END | TRUSS DESIGNAT | BEARING ANGLES | | | | WE | DIAGONAL "T" STRUT | | | | VERTICAL "ST" STRUT | | | | END STIFFENER | | | | | | DOUBLE STRUT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | MK V3 | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTH | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | MK | TYPE STEEL | DIA | LGTH. |
| | C32T40C 598 | 9 | A242 | 2"x1½"x.37 | 2'-3" | 6'-1¼" | 1 | A242 | 1.14 | 6'-3⅛" | 2 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅝" | A242 | 1.14 | 2'-9½" | DS1 | A242 | 92 | 6'-3⅛" |

| CHECK DIMENSION FOR TRUSS FAB. LOCATION OF TRANS. TRUSS | | | | |
|---|---|---|---|---|
| CL-1 | CL-2 | CL-3 | CL-4 | Fs |
| 9'-6½" | 22'-10½" | 36'-2½" | 49'-6½" | 5'-2½" |

CORE END

| EL END | TRUSS DESIGNATION | BEARING ANGLES | | | | WEv | DIAGONAL "Tv" STRUT | | | | VERTICAL "STv" STRUT | | | | END STIFFENER | | | | | | | | | WEB "Wc" | | | | | DOUBLE STRUT | | | | DOUBLE STRUT | | | | (3) DOUBLE STRUT REQD | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | MK. V1 | | | NK. V2 | | | NK. V4 | | | | | | | | | | | | | | | | | | | |
| | | MK | TYPE STEEL | CHORD SIZE | LENGTN | | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTH | TYPE STEEL | DIA. | LENGTN | TYPE STEEL | DIA. | LENGTN | MK | TYPE STEEL | PCS | DIA | LENGT | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH | MK | TYPE STEEL | DIA | LENGTH |
| | C32T40C 598 | 9 | A242 | 2"x1½"x.37 | 1'-6" | 6'-8¼" | 10 | A242 | 114 | 5'-4½" | 5 | A242 | 1.14 | 2'-4⅞" | A242 | 1.14 | 4⅜ - | | | | A242 | 1.14 | 2'-2½" | 4 | A242 | 1 | 1.14 | 2' | DS4 | A242 | .92 | 2'-9½" | DS10 | A242 | .92 | 5'-4¼" | DS3 | A242 | .92 | 2'-6¾" |

PAINT
LACLEDE ELECTROCOAT
REQ NO. 1DD01

STEEL TRUSS - DETAILS
FOR
WORLD TRADE CENTER - N.Y.C.
FOR
THE PORT OF NEW YORK AUTHORITY

FLOOR TRUSS C32T40C 59'-8" OVERALL
WORLD TRADE CENTER TOWERS A & B

FABRICATION BY: LACLEDE STEEL COMPANY

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|---|---|---|---|
| FABRICATED AT: MADISON, ILLINOIS | | DESIGN DRAWING NO. 7-AB-36 | PLATE |
| APPROVED FOR FABRICATION BY: FOR P.D.N.Y.A. | DATE | DRAWN BY: L.B<br>DATE: APRIL 29, 1969 | |
| APPROVED FOR FABRICATION BY: FOR FABRICATOR | DATE. | CHECKED BY: T.N. CHURA<br>DATE: APRIL 29, 1969 | IN CHARGE OF PROD. DEV. |
| LACLEDE STEEL CO.<br>DETAILED BY: A.C. WEBER | | FABRICATION CONT. NO. W.T.C. 221 | SHEET NO. ST240C |